STUDENT NAME _____

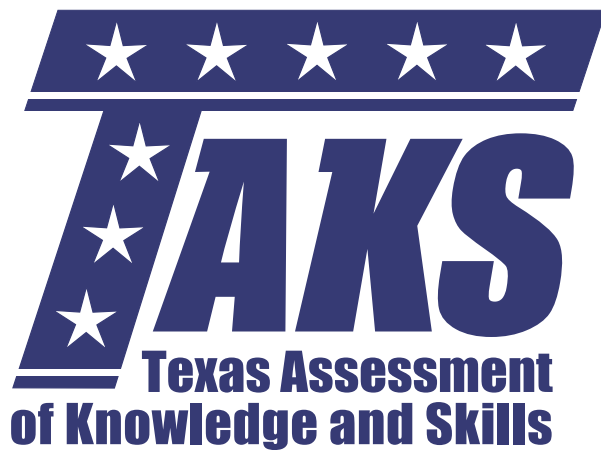**TAKS**
Texas Assessment
of Knowledge and Skills

EXIT LEVEL
MATHEMATICS

Administered April 2009

MATHEMATICS

Mathematics Chart

LENGTH

Metric

1 kilometer = 1000 meters

1 meter = 100 centimeters

1 centimeter = 10 millimeters

Customary

1 mile = 1760 yards

1 mile = 5280 feet

1 yard = 3 feet

1 foot = 12 inches

CAPACITY AND VOLUME

Metric

1 liter = 1000 milliliters

Customary

1 gallon = 4 quarts

1 gallon = 128 fluid ounces

1 quart = 2 pints

1 pint = 2 cups

1 cup = 8 fluid ounces

MASS AND WEIGHT

Metric

1 kilogram = 1000 grams

1 gram = 1000 milligrams

Customary

1 ton = 2000 pounds

1 pound = 16 ounces

TIME

1 year = 365 days

1 year = 12 months

1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds

Metric and customary rulers can be found on the separate Mathematics Chart.

Mathematics Chart

Perimeter	rectangle	$P = 2l + 2w$ or $P = 2(l + w)$
Circumference	circle	$C = 2\pi r$ or $C = \pi d$
Area	rectangle	$A = lw$ or $A = bh$
	triangle	$A = \dfrac{1}{2} bh$ or $A = \dfrac{bh}{2}$
	trapezoid	$A = \dfrac{1}{2}(b_1 + b_2)h$ or $A = \dfrac{(b_1 + b_2)h}{2}$
	regular polygon	$A = \dfrac{1}{2} aP$
	circle	$A = \pi r^2$

P represents the Perimeter of the Base of a three-dimensional figure.

B represents the Area of the Base of a three-dimensional figure.

Surface Area	cube (total)	$S = 6s^2$
	prism (lateral)	$S = Ph$
	prism (total)	$S = Ph + 2B$
	pyramid (lateral)	$S = \dfrac{1}{2} Pl$
	pyramid (total)	$S = \dfrac{1}{2} Pl + B$
	cylinder (lateral)	$S = 2\pi rh$
	cylinder (total)	$S = 2\pi rh + 2\pi r^2$ or $S = 2\pi r(h + r)$
	cone (lateral)	$S = \pi rl$
	cone (total)	$S = \pi rl + \pi r^2$ or $S = \pi r(l + r)$
	sphere	$S = 4\pi r^2$
Volume	prism or cylinder	$V = Bh$
	pyramid or cone	$V = \dfrac{1}{3} Bh$
	sphere	$V = \dfrac{4}{3} \pi r^3$
Special Right Triangles	30°, 60°, 90°	$x,\ x\sqrt{3},\ 2x$
	45°, 45°, 90°	$x,\ x,\ x\sqrt{2}$
Pythagorean Theorem		$a^2 + b^2 = c^2$
Distance Formula		$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
Slope of a Line		$m = \dfrac{y_2 - y_1}{x_2 - x_1}$
Midpoint Formula		$M = \left(\dfrac{x_1 + x_2}{2},\ \dfrac{y_1 + y_2}{2} \right)$
Quadratic Formula		$x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
Slope-Intercept Form of an Equation		$y = mx + b$
Point-Slope Form of an Equation		$y - y_1 = m(x - x_1)$
Standard Form of an Equation		$Ax + By = C$
Simple Interest Formula		$I = prt$

DIRECTIONS

Read each question. Then fill in the correct answer on your answer document. If a correct answer is <u>not</u> <u>here</u>, mark the letter for "Not here."

SAMPLE A

Find the slope of the line $2y = 8x - 3$.

A $-\dfrac{3}{2}$

B   4

C   8

D   Not here

SAMPLE B

Janice uses a rectangular box to store her art supplies. The dimensions of the rectangular box are 22.5 inches by 14 inches by 11.5 inches. What is the volume of this box in cubic inches?
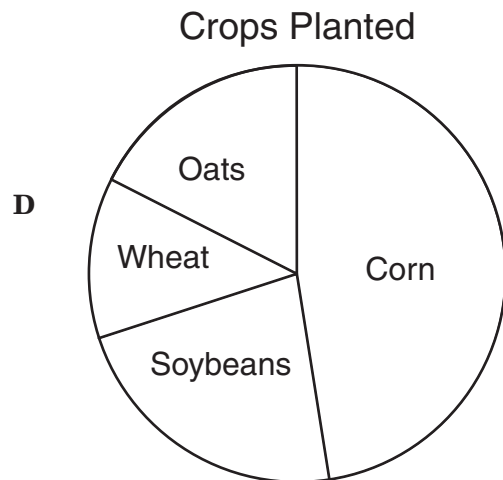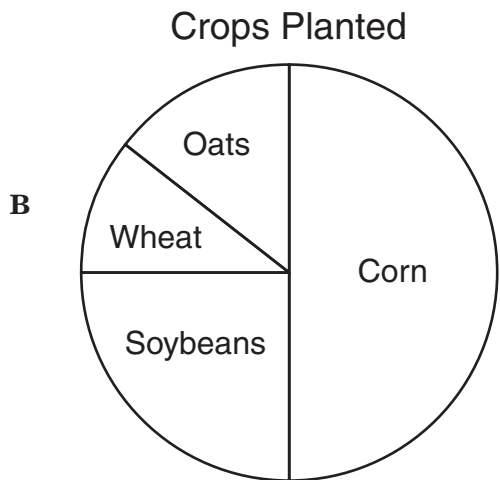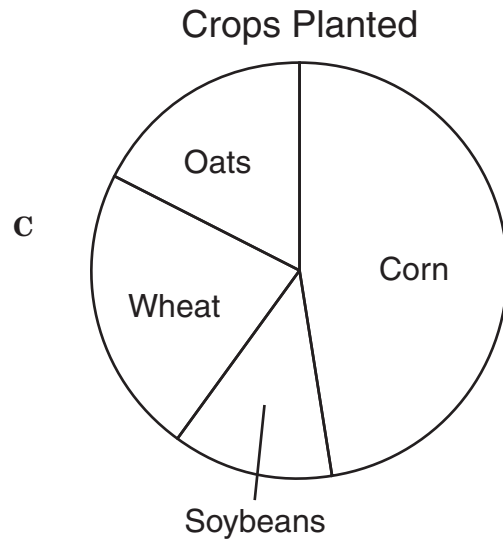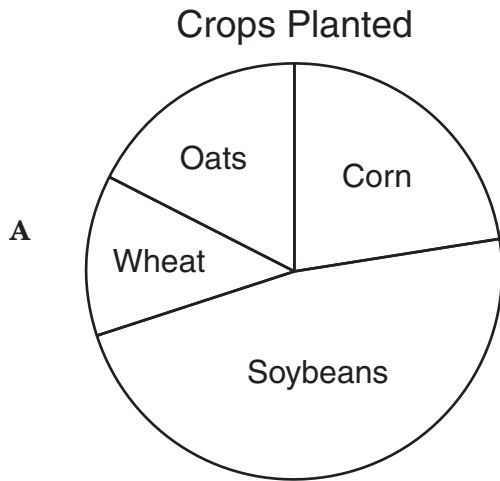
Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.
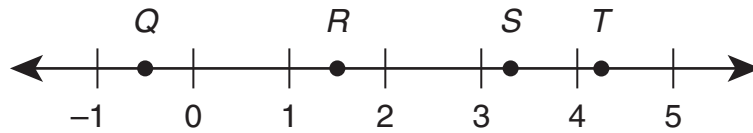
STOP

1 Ms. Ugalde has an 80-acre farm.

- 38 acres are used for planting corn.
- 18 acres are used for planting soybeans.
- 10 acres are used for planting wheat.

The remaining acres are used for planting oats. Which of the following graphs best represents these data?

A

Crops Planted

Oats

Corn

Wheat

Soybeans

C

Crops Planted

Oats

Corn

Wheat

Soybeans

B

Crops Planted

Oats

Wheat

Corn

Soybeans

D

Crops Planted

Oats

Wheat

Corn

Soybeans

2 Which point on the number line below is farthest away from $\sqrt{6}$?

F Point Q

G Point R

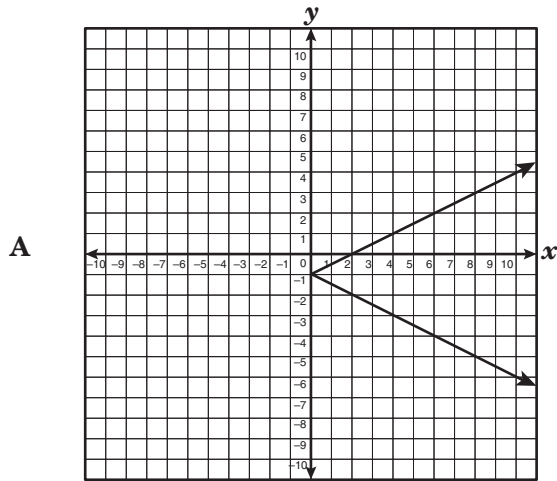**H** Point S

J Point T

3 Which graph best represents the relationship in the table below?

x	y
−2	2
−1	0
0	2
1	4
2	6

A

B

C

D
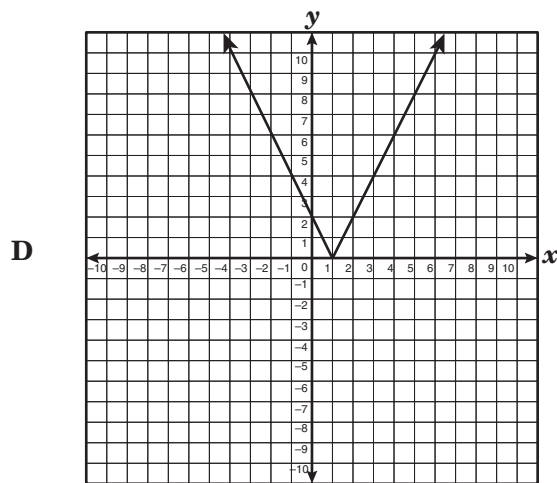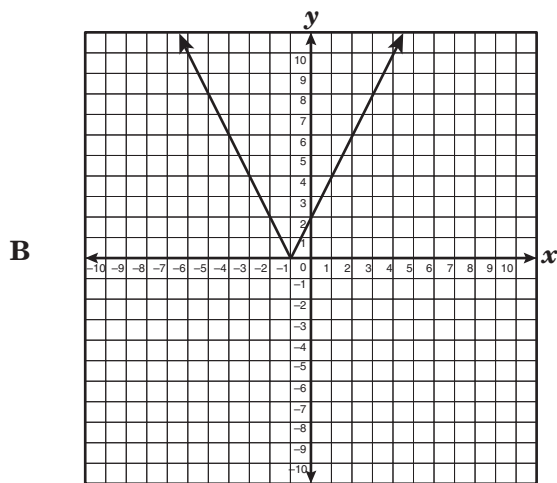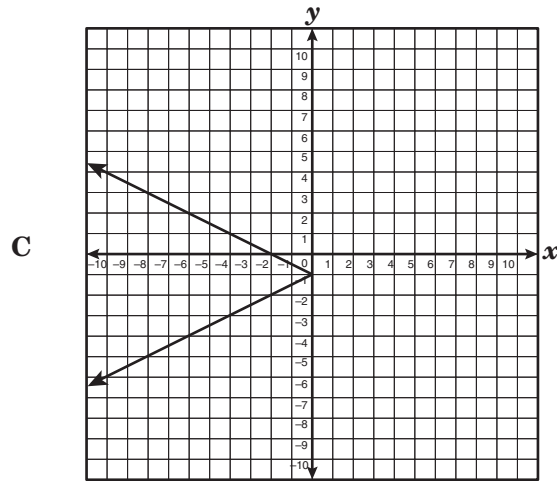
4 If the graph of $y = 19x^2 + 31$ is translated up 15 units, which of the following equations will best describe the resulting graph?

F $y = 34x^2 + 31$

G $y = 34x^2 + 46$

H $y = 19x^2 + 46$

J $y = 19x^2 + 16$

5 A restaurant sold a total of 418 large and small hamburgers during one day. Total hamburger sales were $1077. Large hamburgers sold for $3, and small hamburgers sold for $1.50. Which system of linear equations can be used to find l, the number of large hamburgers sold, and s, the number of small hamburgers sold?

A $l + s = 1077$
$3l + 1.50s = 418$

B $l + s = 418$
$3l + 1.50s = 1077$

C $1.50l + 3s = 418$
$l + s = 1077$

D $l + s = 418$
$1.50l + 3s = 1077$

6 The table below shows the number of line segments that can be drawn between a given number of points.

Number of Points	1	2	3	4
Points	•	•—•	△	⊠
Number of Line Segments	0	1	3	6

Which expression can be used to determine the number of line segments that can be drawn between n points?

F $\dfrac{3}{2}n$

G $n - 1$

H $n^2 - 2n$

J $\dfrac{n(n - 1)}{2}$

7 Scientists developed the linear model below to show the relationship between altitude, or elevation above sea level (0 feet), and air temperature.

Temperature at Different Altitudes

According to the model, what would be the air temperature at an altitude of 0 feet?

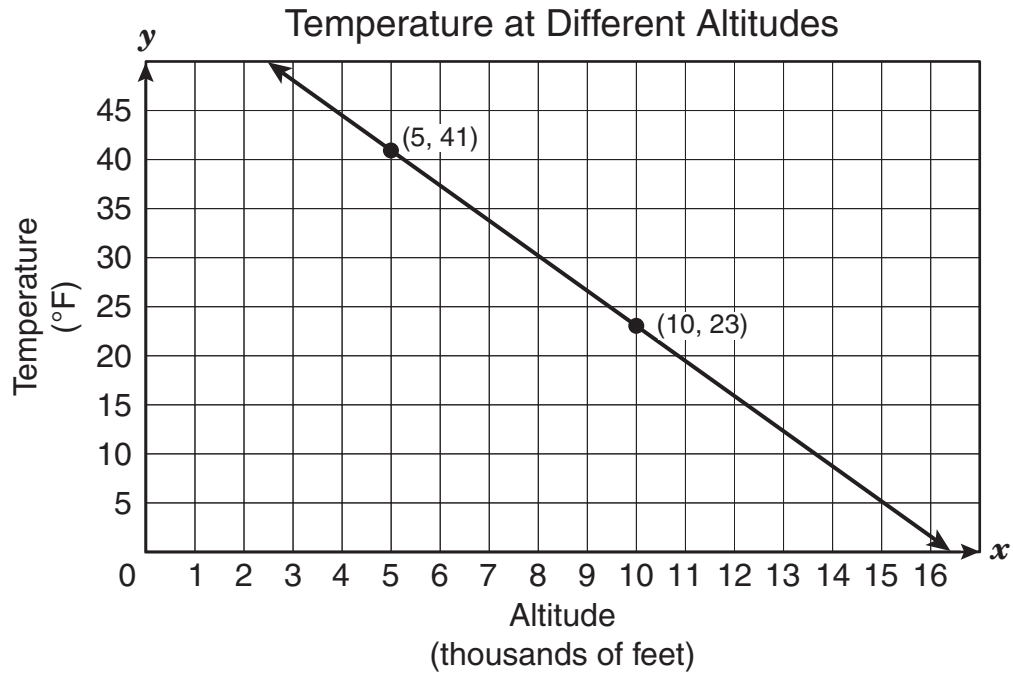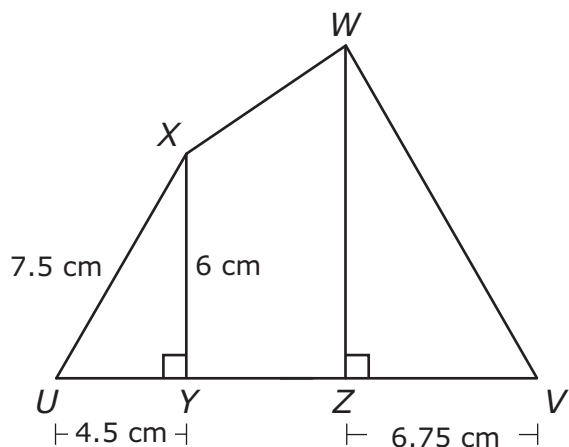**A** 16°F

B 45°F

C 59°F

D 77°F

8 Quadrilateral *UVWX* is shown below.

If Δ*UYX* and Δ*VZW* are similar, which of the following is closest to the area of Δ*VZW*?

F 61 cm^2

G 38 cm^2

H 30 cm^2

J 9 cm^2

9 A total of 1755 customers at an electronics store were asked to identify which item they planned to purchase in the next month. The table below shows the results of the survey.

Results of Customer Survey

Item	Number of Customers
Video camera	598
DVD player	264
Television	325
Desktop computer	312
Laptop computer	256

According to the information above, which of the following statements is true?

A About $\dfrac{3}{20}$ of the customers planned to purchase a DVD player.

B About $\dfrac{1}{19}$ of the customers planned to purchase a television.

C About $\dfrac{2}{3}$ of the customers planned to purchase a laptop computer.

D More than $\dfrac{1}{2}$ of the customers planned to purchase either a computer or a DVD player.

GO ON

10 Which equation is the parent function of the graph shown below?
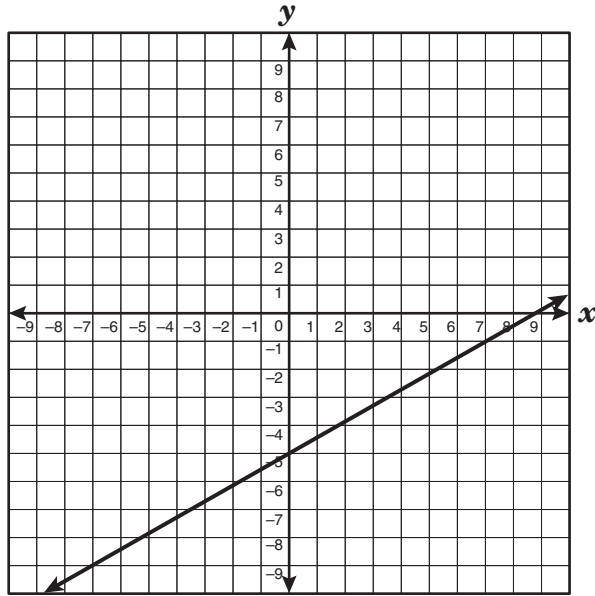
F $y = |x|$

G $y = \sqrt{x}$

H $y = x^2$

J $y = x$

---

11 During a sale at a shoe store, all shoes were 25% off the original price. Which statement best describes the functional relationship between the sale price of a pair of shoes and the original price?

A   The sale price is dependent on the original price.

B   The original price is dependent on the sale price.

C   The sale price and the original price are independent of each other.

D   The sale price is dependent on the number of pairs of shoes purchased.

GO ON

12 Circle Q has a diameter $\overline{WY}$. Point W is located at $(3, -2)$, and point Y is located at $(5, -6)$. Which of the following ordered pairs represents point Q, the center of the circle?

F $(8, -8)$

G $(4, -4)$

H $(-1.5, 1.5)$

J $(3, -6)$

13 Ms. Rodríguez plans to order from 20 to 26 books for her class. The prices of the books she plans to order range from \$4.95 to \$12.95 each. If the publisher charges a shipping fee of \$0.50 per book ordered, which of the following is not a reasonable price for the books, including shipping?

A \$145

B \$245

C \$345

D \$445

14 Barbara graphs a family of equations of the form $y = ax^2 + 1$. How does each new graph compare to the previous graph as Barbara increases the value of a from $\frac{1}{2}$ to 1 to $1\frac{1}{2}$ and finally to 2?

F Each new graph is above the previous graph.

G Each new graph is wider than the previous graph.

H Each new graph is narrower than the previous graph.

J Each new graph is to the right of the previous graph.

---

15 Rectangle *PQRS* is shown on the grid below.
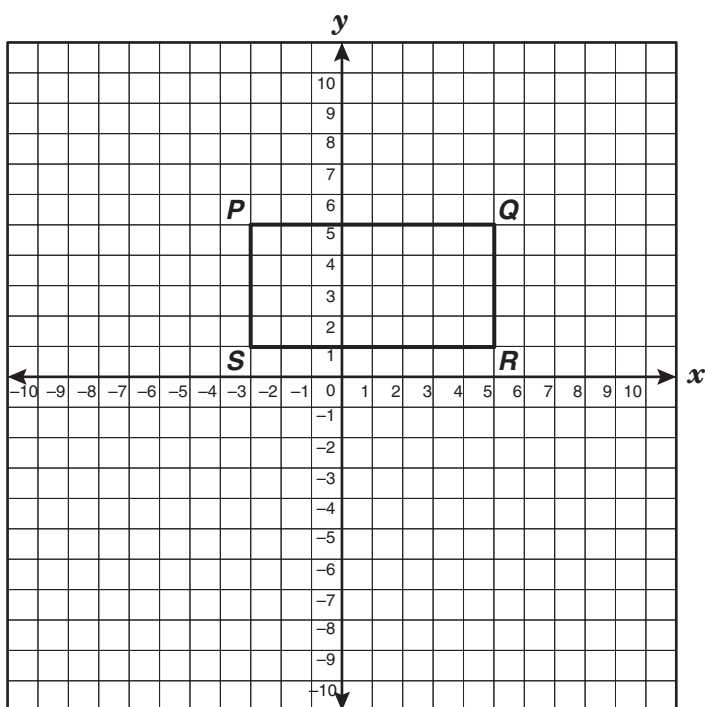
Which equation best represents a line that is parallel to $\overline{PR}$?

A $y = 2x - 5$

B $y = -2x + 4$

C $y = \frac{1}{2}x - 2$

D $y = -\frac{1}{2}x + 7$

GO ON

16 Triangle *XYZ* is shown below.
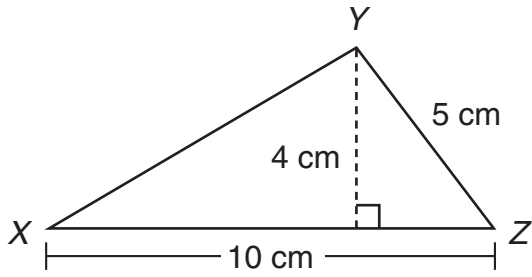
What is the length of $\overline{XY}$?

F $\sqrt{65}$ cm

G $\sqrt{33}$ cm

H $\sqrt{75}$ cm

J $\sqrt{116}$ cm

17 Each square design below is made up of rectangles of equal size. Each rectangle is twice as long as it is wide.
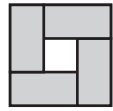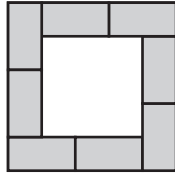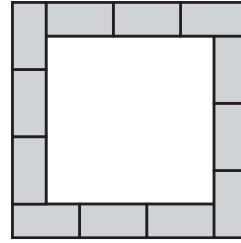
⊢12 in.⊣   ⊢—20 in.—⊣   ⊢——28 in.——⊣

Within the same design, which of the following is possible?

A   A square with a side length of 68 made up of 36 rectangles

B   A square with a side length of 80 made up of 40 rectangles

C   A square with a side length of 76 made up of 32 rectangles

D   A square with a side length of 52 made up of 24 rectangles

18 The function $y = -3x - 8$ is graphed below.
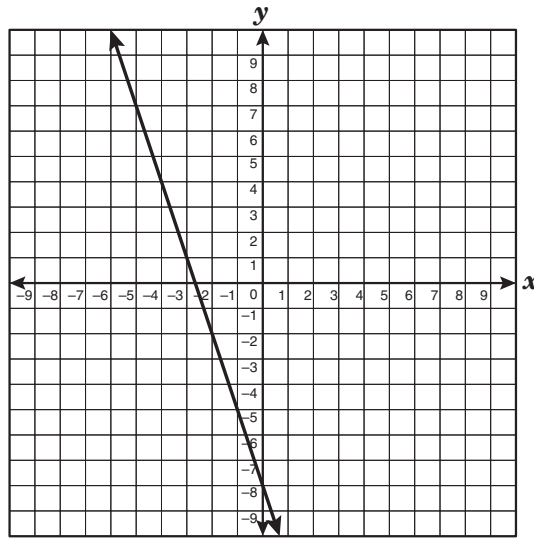
In the function above, the slope will be multiplied by -2, and the y-value of the y-intercept will be increased by 2 units. Which of the following graphs best represents the new function?

F

H

G

J

GO ON
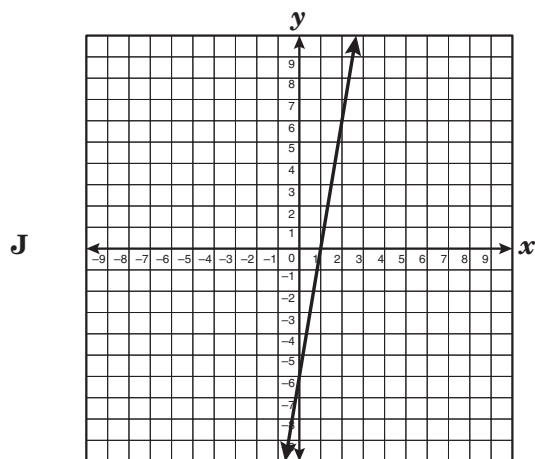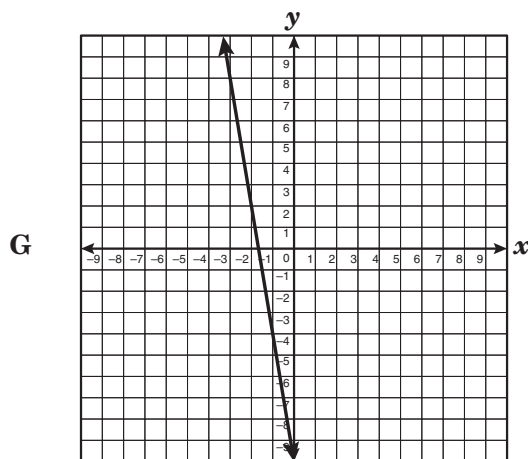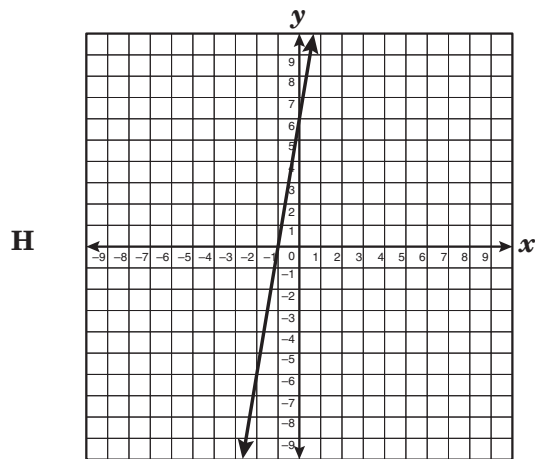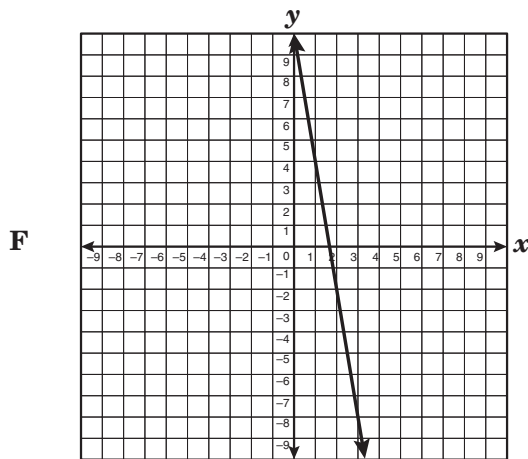
19 Wesley and Delia are playing a math game. Wesley gives Delia these steps to follow.

Step 1 Multiply a number by 6 and then subtract 4.

Step 2 Divide the result by 2.

Step 3 Add 3 to the result from the second step.

If Delia's final answer is 19, what was the original number?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

20 Two quantities, x and y, are in a relationship in which y varies directly with x. The graph of this function contains the point $(-16, 28)$. Which of the following represents this relationship?

F $y = \dfrac{4}{7}x$

G $y = -\dfrac{7}{4}x$

H $y = -\dfrac{4}{7}x$

J $y = \dfrac{7}{4}x$

21 Kevin saves 20% of his total weekly earnings from his 2 part-time jobs. He earns $5.75 per hour at his first job and $6.55 per hour at his second job. Kevin works 20 hours this week at the first job and 10 hours this week at the second job. What is the amount that he will save this week?

A $36.10

B $37.70

C $36.90

D $34.50

22 The diagram below shows a circle inscribed in an isosceles right triangle.
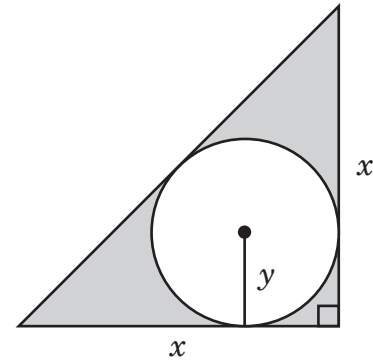
Which equation best represents the area, A, of the shaded region?

F $A = x^2 - y^2$

G $A = \dfrac{1}{2}x^2 + \pi y^2$

H $A = \dfrac{1}{2}x^2 - \pi y^2$

J $A = x^2 - \pi y^2$

23 During the second week of summer vacation, Reuben practiced his guitar for 10 minutes less than twice the amount of time he practiced the first week. If he practiced m minutes the first week, which of the following expressions represents the number of minutes that Reuben practiced during the second week?

A $2 - 10m$

B $10 - 2m$

C $2m - 10$

D $10m - 2$

24 The length of a rectangle is $4r^2s^5t^3$ units, and the rectangle's area is $20r^5s^7t^4$ square units. If $r \neq 0$, $s \neq 0$, and $t \neq 0$, which of the following best describes the width of the rectangle?

F $5r^3s^2t$ units

G $5r^7s^{12}t^7$ units

H $16r^3s^2t$ units

J $24r^7s^{12}t^7$ units

25 A city bus collected $780 in fares on one day. The price of a regular fare was $0.80, and the price of a discount fare was $0.40. If a total of 1200 people paid the fares on this bus, how many people paid the regular fare?

A 1000

B 1950

C 600

D 750

26 The drawing below shows the net of a rectangular prism. Use the ruler on the Mathematics Chart to measure the dimensions of the net to the nearest tenth of a centimeter.
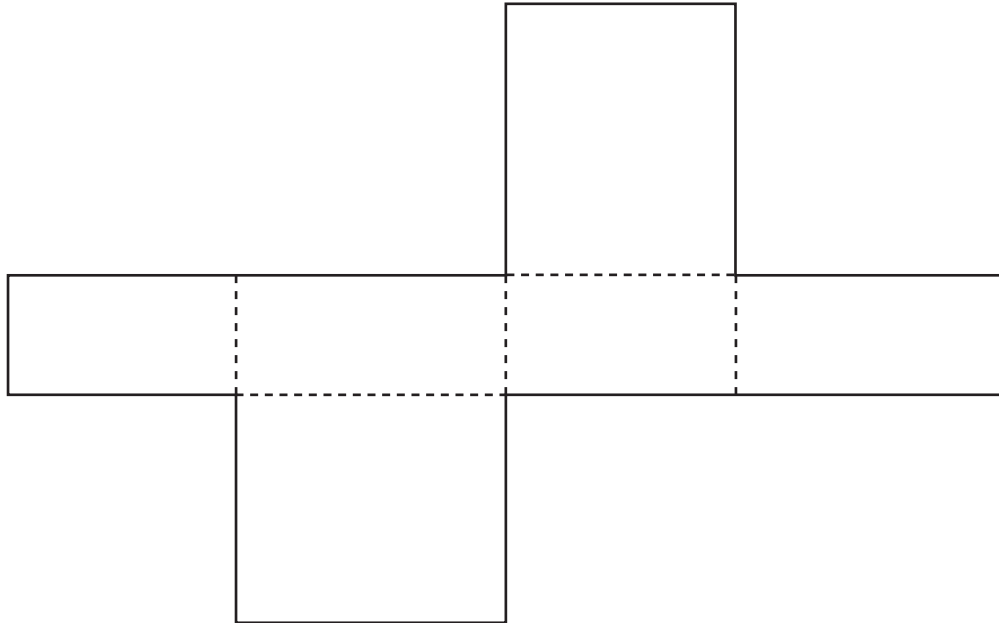
If the net is folded to form the rectangular prism, which of the following is closest to the prism's volume?

F 17.3 cm^3

G 5.8 cm^3

H 4.8 cm^3

J 10.8 cm^3

27 Michelle's cellular-phone company offers a plan that allows 300 minutes of use for $29.95 per month and charges $0.19 for each additional minute. All prices include tax and fees. Michelle has budgeted $50 per month for calls on her cellular phone. What is the maximum number of minutes that she can use her cellular phone each month without spending more than $50?

A 405 min

B 105 min

C 406 min

D 106 min

GO ON

28 Which equation best represents the line graphed below?
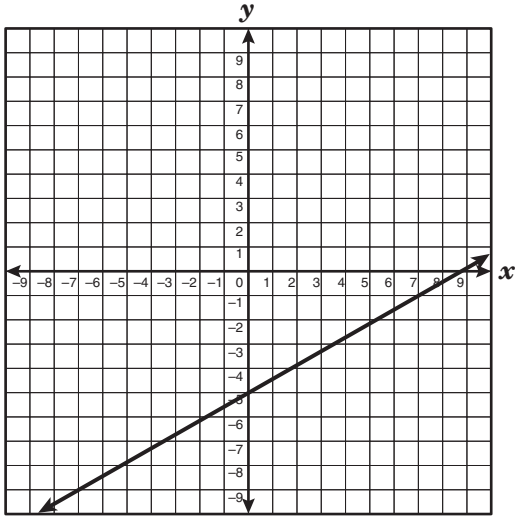
F $7x + 4y = 35$

G $4x - 7y = 35$

H $4x + 7y = -35$

J $7x - 4y = -35$

29 A rhombus is shown below.
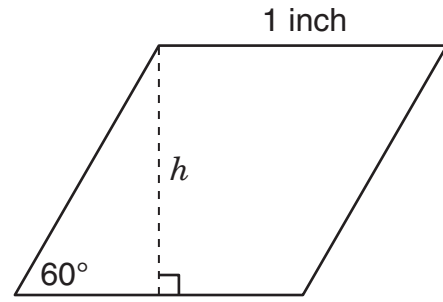
If the height, h, intersects the base at its midpoint, which of these is closest to the height of the rhombus?

A 0.9 inch

B 0.7 inch

C 1.4 inches

D 1.7 inches

Page 25

30 The figure below shows a square pyramid with a base length of 32 inches and a slant height of 34 inches.

30 in.   34 in.

32 in.
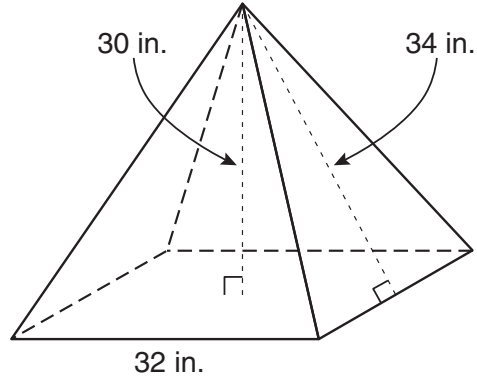
Which of the following square pyramids is similar to the square pyramid above?

F 23.8 in.

22.4 in.

H 20.4 in.

19.2 in.

G 18.7 in.

20.8 in.

J 17.6 in.

18.7 in.
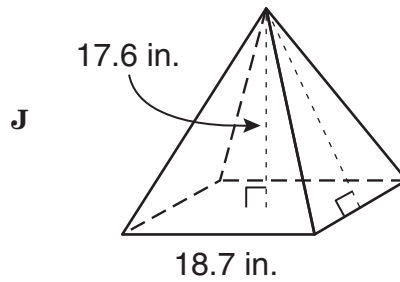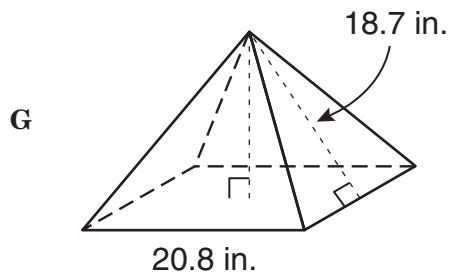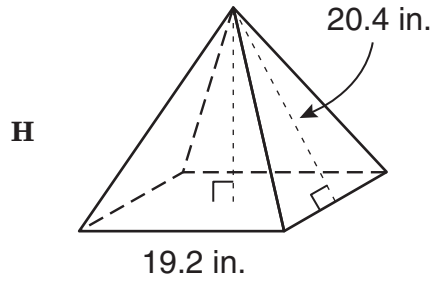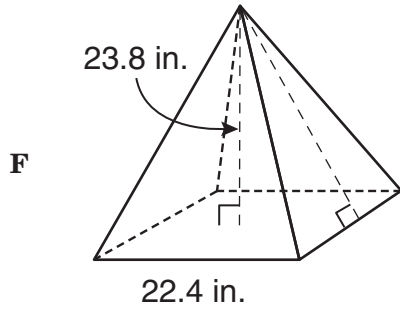
31 The function below shows a relationship between x and y.

$$y = 7x + 3$$

If the value of x increases by 1, what happens to the value of y?

A The value of y increases by 3.

B The value of y increases by 7.

C The value of y increases by 10.

D The value of y increases by 21.

32 At an ice-cream shop, customers can order a sundae with 1 type of ice cream, 1 type of sauce, and 1 type of topping. The types of ice cream, sauces, and toppings offered are shown below.

Choices at an Ice-Cream Shop

Ice Cream	Sauce	Topping
Chocolate	Caramel	Chocolate chips
Strawberry	Strawberry	Peanuts
Vanilla	Chocolate	Raisins
	Butterscotch	Strawberries
		Walnuts

If each type of ice cream, sauce, and topping is equally likely to be selected, what is the probability that a customer will order a sundae with vanilla ice cream, caramel sauce, and walnuts?

F $\dfrac{1}{60}$

G $\dfrac{1}{4}$

H $\dfrac{1}{11}$

J $\dfrac{1}{12}$

33 $\triangle ABC$ has vertices A $(-2, 5)$, B $(-2, 2)$, and C $(-5, 2)$.
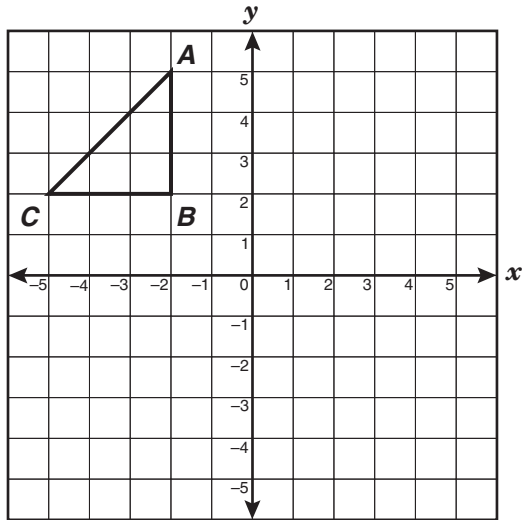
If $\triangle ABC$ is reflected across the line $y = x$, which of the following will be the coordinates of A'?

A $(-2, -5)$

B $(5, -2)$

C $(2, 5)$

D $(-5, 2)$

34 Carl was asked to solve the problem shown in the box below.

A certain type of cube has 2-inch edges. What is the maximum number of cubes that can be put into a box that measures 2.7 feet by 3.2 feet by 4.1 feet?

Which of the following could Carl do to solve the problem correctly?

F Add the dimensions given in feet

G Multiply each dimension given in feet by 2 inches

H Convert 2 inches into 24 feet

J Convert the dimensions of the box from feet to inches

GO ON

35 The figure below shows circle P and circle Q. $\overline{PQ}$, $\overline{QR}$, and $\overline{RS}$ are each 3 units long.
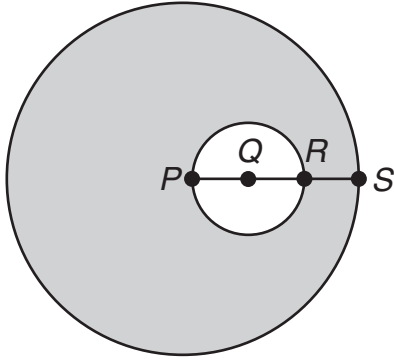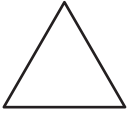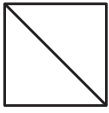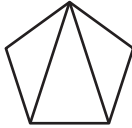
What is the area of the shaded region in terms of π?

A 36π

B 72π

C 12π

D 78π

36 Which of the following nets forms a triangular pyramid?

F

G

H

J
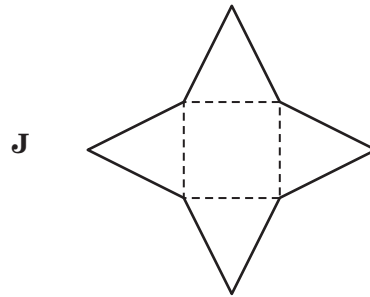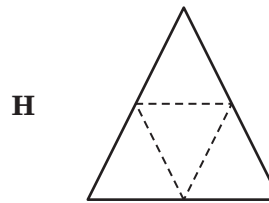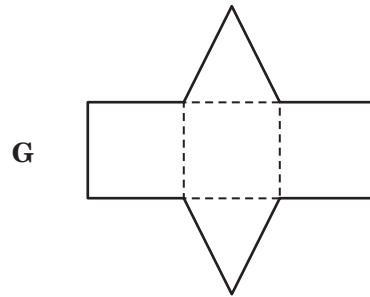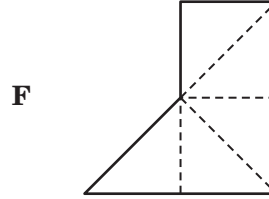
37 The table below shows how many triangles are formed when all the diagonals are drawn from one vertex in different regular polygons.

Number of Sides	3	4	5	6
Regular Polygon				
Number of Triangles	1	2	3	4

Based on the table, which of the following statements is true?

A   All the triangles formed in each regular polygon are congruent.

B   All the triangles formed in each regular polygon are isosceles.

C   The number of triangles formed in any regular polygon is 2 less than the number of sides in the polygon.

D   The number of triangles formed in any regular polygon is half the number of sides in the polygon.

38 In Figure 1 a cylinder with a diameter of 12 centimeters is filled with water to a height of 8 centimeters.

├─12 cm─┤

8 cm
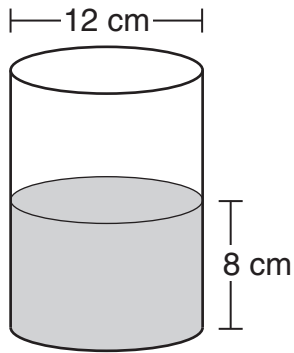
Figure 1

In Figure 2 a rock is submerged in the cylinder.

├─12 cm─┤

11.7 cm
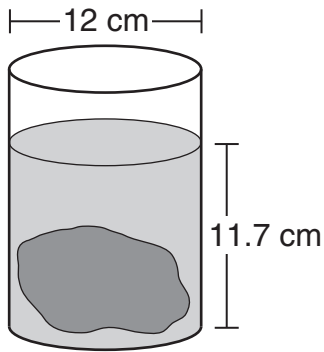
Figure 2

Which of the following is closest to the volume of the rock?

F 139 cm^3

G 418 cm^3

H 1674 cm^3

J 1323 cm^3

39 Which of the following expressions is equivalent to the expression $-5x(2x + 7y) + 7xy - 4x(y + 3)$?

A $-10x^2 + 7y + 3xy + 3$

B $-10x^2 + 38xy + 12x$

C $-10x^2 - 32xy - 12x$

D $-10x^2 - 38xy + 12x$

40 Chan drew the following design.
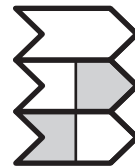
He then used the design to create the pattern below.
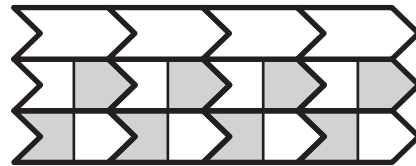
What type of transformation did Chan use to create his pattern?

F Dilation

G Reflection

H Rotation

J Translation

41 The diagram below represents a sector of a circle.

75°
36 in.
A
B
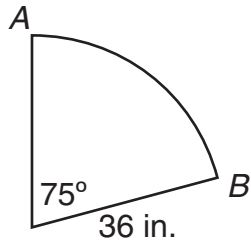
Which of the following is closest to the length of $\overset{\frown}{AB}$ if the central angle is 75° and the radius of the circle is 36 inches?

A   23.6 in.

B   47.1 in.

C   179.1 in.

D   89.5 in.

42 Dominique created a pattern using right triangles. She started the pattern with an isosceles right triangle, with each leg measuring 1 unit. The hypotenuse of each successive triangle follows a pattern, as shown in the diagram below.
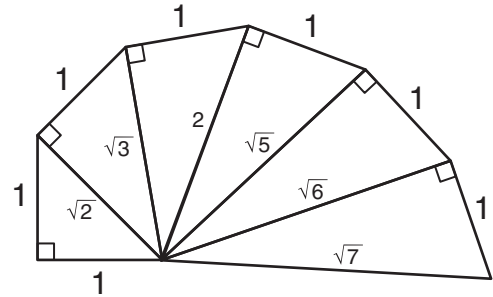
If Dominique continues this pattern 5 more times, which of the following would be the measure of the final hypotenuse?

F   12 units

G $2\sqrt{5}$ units

H $2\sqrt{3}$ units

J $\sqrt{11}$ units

GO ON

43 What is the solution set for the equation $2x^2 - 16x - 96 = 0$?

   A {4, 12}

   B {−4, 12}

   C {−4, −12}

   D {4, −12}

45 Denise can assemble a chair in 0.75 hour and a table in 0.4 hour. Which inequality best represents the number of chairs, c, and the number of tables, t, that Denise can assemble in one day if she works a maximum of 8 hours?

   A $(0.75 + 0.4)(c + t) \leq 8$

   B $0.75c + 0.4t \geq 8$

   C $0.75c + 0.4t \leq 8$

   D $(0.75 + c) + (0.4 + t) \geq 8$

44 The function table shows the values of $f(n)$ for given values of n.

n	1	2	3	4
$f(n)$	2	2.5	3	3.5

Which function best represents the relationship between the quantities in the table?

   F $f(n) = n + \dfrac{1}{2}$

   G $f(n) = 2n$

   H $f(n) = \dfrac{n + 1}{n}$

   J $f(n) = \dfrac{n + 3}{2}$

46 For a regular pentagonal prism, what is the ratio of the number of vertices to the number of edges?

   F 2:3

   G 3:2

   H 3:5

   J 5:3

GO ON

47 Two car-rental companies are advertising special rates for a midsize car. Wendell's Motor Rentals is advertising a rate of $35 a day plus $0.20 per mile traveled, tax included. Marina's Car Rentals is advertising a rate of $25 a day plus $0.40 per mile traveled, tax included. Which graph correctly compares the cost of renting a midsize car for one day from each company?

A

Special Rates for
Midsize Car Rental

Total Cost (dollars)

Number of Miles Traveled

C

Special Rates for
Midsize Car Rental

Total Cost (dollars)

Number of Miles Traveled

B

Special Rates for
Midsize Car Rental

Total Cost (dollars)

Number of Miles Traveled

D

Special Rates for
Midsize Car Rental

Total Cost (dollars)

Number of Miles Traveled

Page 35

GO ON
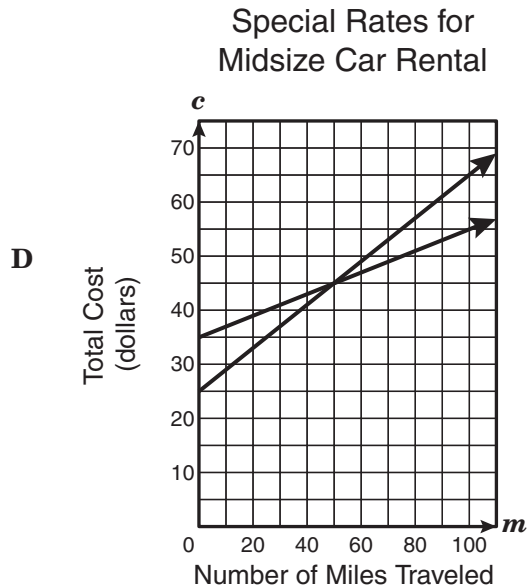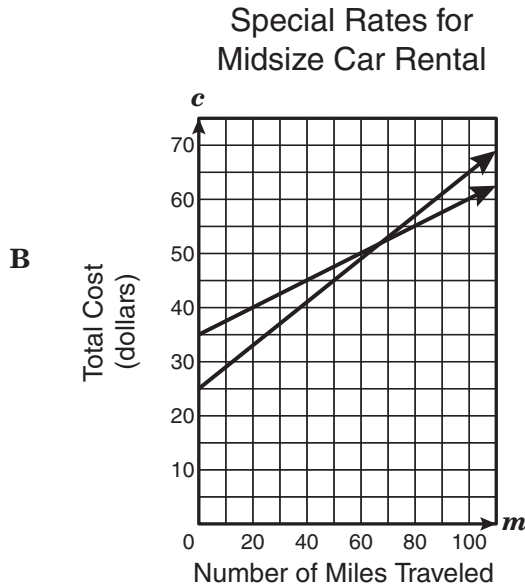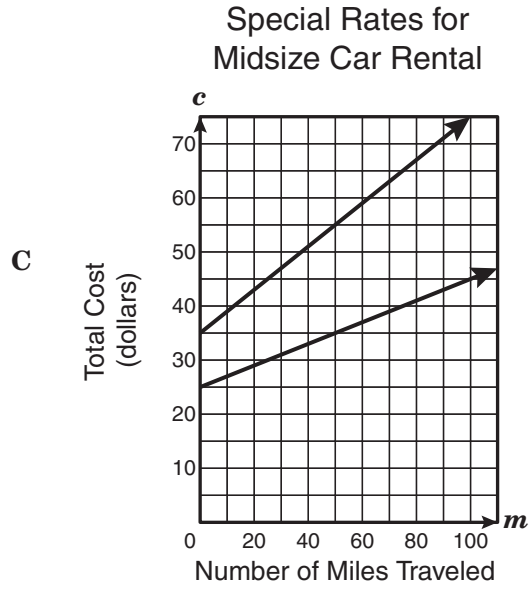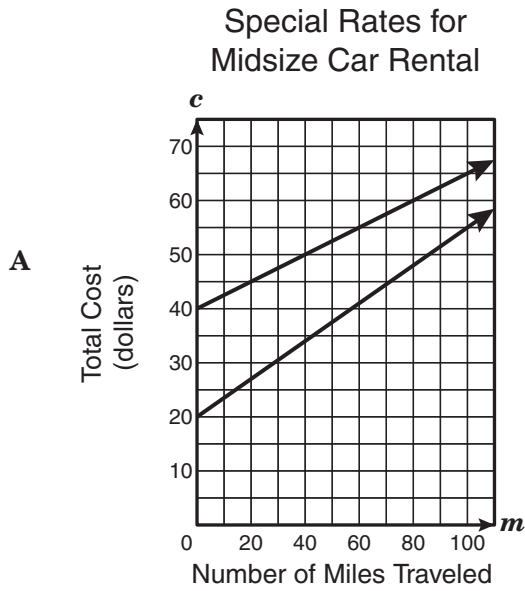
48 Nisha can solve a set of 5 math problems in 12 minutes. At this rate, how long will it take her to solve 20 sets of 7 math problems?

    F 58 minutes

    G 5 hours 16 minutes

    H 48 minutes

    J 5 hours 36 minutes

49 For any negative integers m, n, p, and q, which of the following is always true if $mn < pq$?

    A $q > m$

    B $-mn > -pq$

    C $-n < -p$

    D $nq < mp$

50 The front and right-side views of a figure made of identical cubes are shown below.
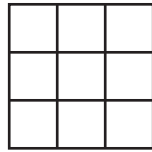
Front view
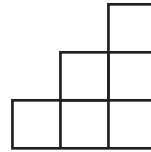
Right-side view

Which 3-dimensional figure is best represented by the two views above?

F

Front   Right

H

Front   Right

G

Front   Right

J

Front   Right

Page 37

GO ON
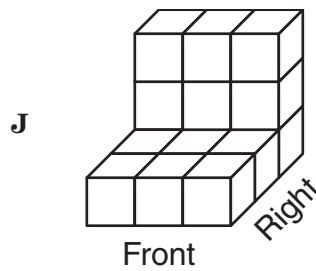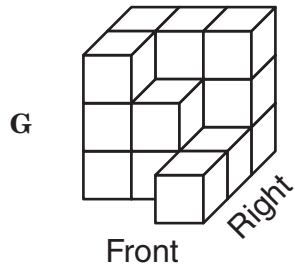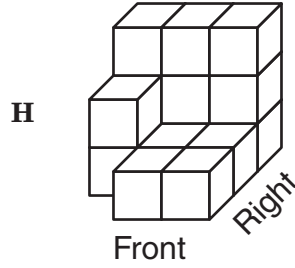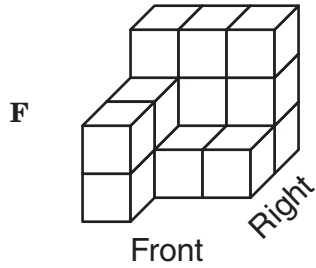
51 Which expression represents the perimeter of the triangle below?
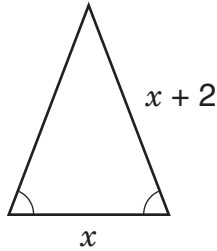
A $3x + 4$

B $\dfrac{x^2 + 2x}{2}$

C $2x + 2$

D $x^2 + 2x$

52 What is the slope of the linear equation $101x + 53y = 12$?

F -101

G $\dfrac{12}{53}$

H $-\dfrac{101}{53}$

J $\dfrac{12}{101}$

53 The rectangle below has a perimeter of 18 feet with a length of 6 feet.

$P = 18$ ft

6 ft
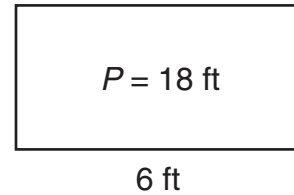
A new rectangle is formed by decreasing the width of the original rectangle by 1 foot and keeping the length the same. How will the perimeter of the new rectangle compare with the perimeter of the original rectangle?

A The perimeter of the new rectangle will be 3 feet shorter than the perimeter of the original rectangle.

B The perimeter of the new rectangle will be 2 feet shorter than the perimeter of the original rectangle.

C The perimeter of the new rectangle will be 1 foot shorter than the perimeter of the original rectangle.

D The perimeter of the new rectangle will be $\dfrac{1}{2}$ foot shorter than the perimeter of the original rectangle.

54 The table below shows the value of a term in a given position in a sequence of numbers that follows a pattern.

Position	Value of Term
1	$-2\frac{1}{2}$
2	-1
3	$1\frac{1}{2}$
4	5
5	$9\frac{1}{2}$
n	?

Which expression best represents the value of the nth term?

F $\dfrac{n^2}{2} - 3$

G $\dfrac{n^2 - 11}{4}$

H $\dfrac{3n^2}{2} - 4$

J $\dfrac{2n^2 - 17}{6}$

55 Jalen needs to earn an average of $120 a week from his part-time job by the end of his 4th week. His first 3 weekly paychecks were for $95, $145, and $130. Which equation can Jalen use to find how much he must earn in the 4th week in order to meet his goal?

A $\dfrac{x + 370}{3} = 120$

B $\dfrac{x + 370}{4} = 120$

C $x + 120 = \dfrac{370}{3}$

D $\dfrac{x + 120}{4} = 370$

56 How many vertices does the polyhedron below have?
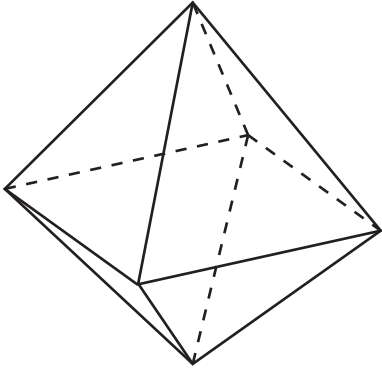
- **F** 3
- **G** 5
- **H** 8
- **J** Not here

57 Francis, Leon, and Shelby are running for president of their school's student council. A random survey of 60 students was taken to determine whom they planned to vote for in the election. The results are shown in the table below.

Survey Results

Candidate	Number of Students
Francis	29
Leon	22
Shelby	9

Based on the data in the table, which of the following is the best prediction of the number of students who will vote for Leon if 2500 students vote?

- **A** 1208
- **B** 292
- **C** 916
- **D** 550

58 The graph below represents the relationship between the density of water and the temperature of water.

Density of Water vs. Temperature
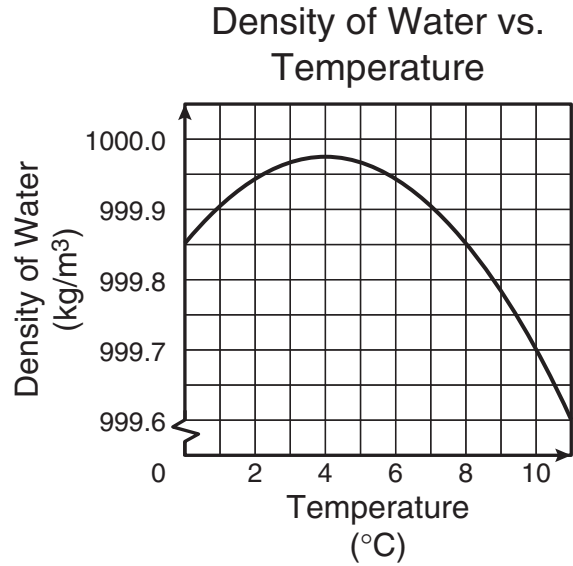
According to the graph, which of the following intervals best represents the temperature at which the density of water is greater than 999.9 kilograms per cubic meter?

F Less than 1°C

G Between 0°C and 4°C

H Between 4°C and 8°C

J Between 1°C and 7°C

59 The graph of $-x + 5y = 9$ is shown below.
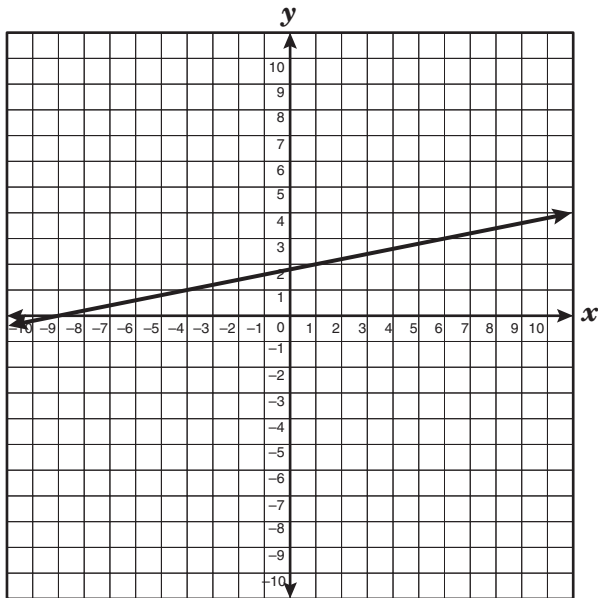
Which point represents a solution to this equation?

A (0, 1)

B (2, 1)

C (1, 2)

D (−7, 0)

60 The height in centimeters, $h(x)$, of a human female of European ancestry can be estimated by multiplying the length of the tibia in centimeters, x, by 2.90 and then adding 61.53 to the product. Which of the following best represents this relationship?

F $h(x) = (2.90 + x)(61.53)$

G $h(x) = 2.90(x + 61.53)$

H $h(x) = 2.90x + 61.53$

J $h(x) = \dfrac{x}{2.90} + 61.53$

BE SURE YOU HAVE RECORDED ALL OF YOUR ANSWERS
ON THE ANSWER DOCUMENT.

STOP

TAKS EXIT LEVEL
MATHEMATICS
APRIL 2009
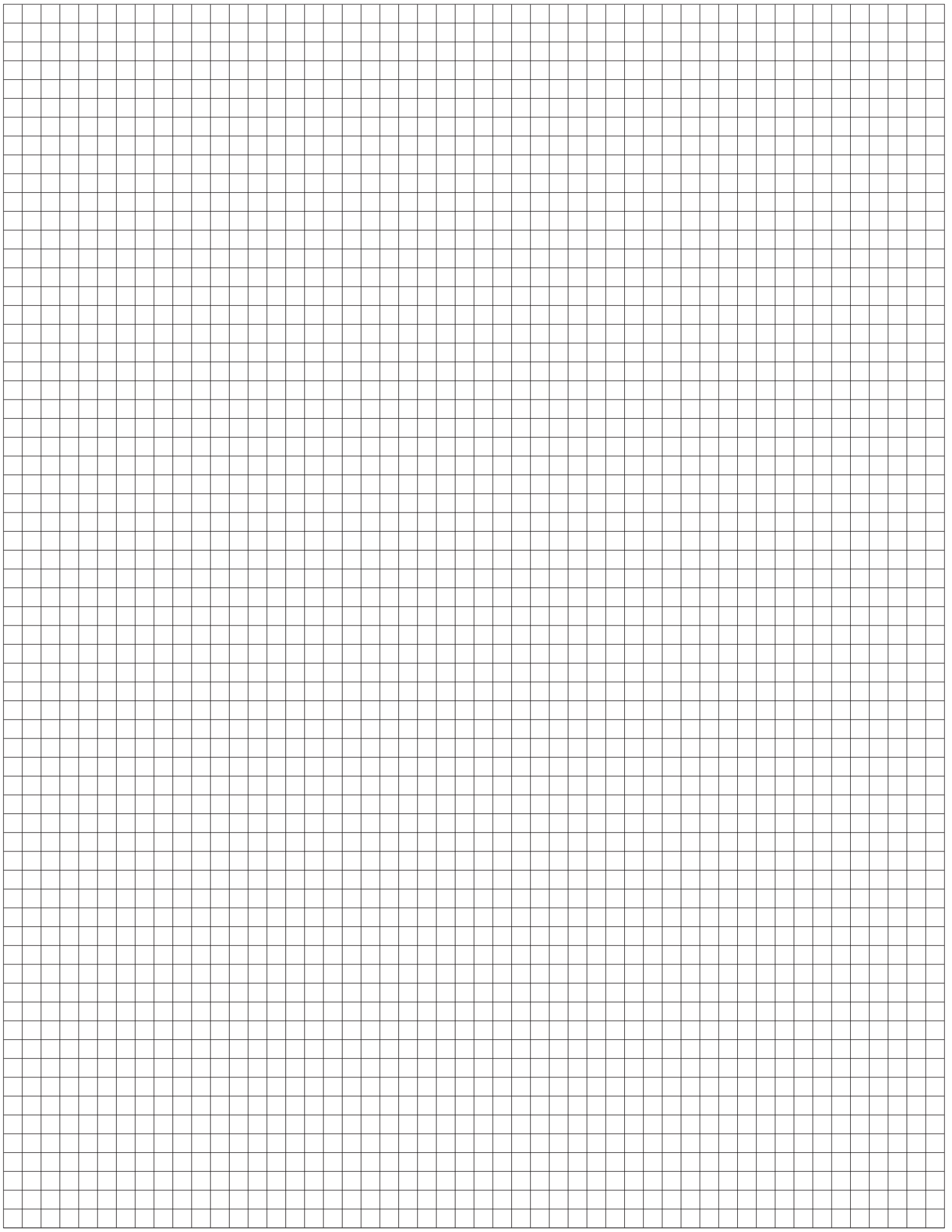
Texas Assessment of Knowledge and Skills - Answer Key

Grade: Exit Level
Subject: Mathematics
Administration: April 2009

The letter **A** indicates that the student expectation listed is from the Algebra I TEKS.

The letter **G** indicates that the student expectation listed is from the Geometry TEKS.

Item Number	Correct Answer	Objective Measured	Student Expectations
01	D	09	8.12 (C)
02	F	07	G.7 (A)
03	B	01	A.1 (D)
04	H	05	A.9 (C)
05	B	04	A.8 (A)
06	J	06	G.5 (A)
07	C	03	A.6 (E)
08	H	08	G.11 (B)
09	A	09	8.13 (B)
10	J	02	A.2 (A)
11	A	01	A.1 (A)
12	G	07	G.7 (C)
13	D	04	A.7 (C)
14	H	05	A.9 (B)
15	D	07	G.7 (B)
16	F	08	G.8 (C)
17	D	10	8.16 (A)
18	J	03	A.6 (C)
19	6	10	8.14 (C)
20	G	03	A.6 (G)
21	A	10	8.14 (A)
22	H	06	G.4 (A)
23	C	02	A.3 (A)
24	F	05	A.11 (A)
25	D	04	A.8 (B)
26	F	08	G.8 (D)
27	A	10	8.14 (A)
28	G	03	A.5 (C)
29	A	06	G.5 (D)
30	H	08	G.11 (A)
31	B	01	A.1 (E)
32	F	09	8.11 (A)
33	B	06	G.10 (A)
34	J	10	8.14 (B)
35	B	08	G.8 (A)
36	H	07	G.6 (B)
37	C	06	G.5 (B)
38	G	10	8.14 (C)
39	C	02	A.4 (B)
40	J	06	G.5 (C)
41	B	08	G.8 (B)
42	H	10	8.14 (C)
43	B	05	A.10 (A)
44	J	01	A.1 (B)
45	C	04	A.7 (A)
46	F	07	G.9 (D)
47	D	02	A.2 (C)
48	J	09	8.3 (B)
49	B	10	8.16 (B)
50	H	07	G.6 (C)
51	A	06	G.4 (A)
52	H	03	A.6 (A)
53	B	08	G.11 (D)
54	F	02	A.3 (B)
55	B	10	8.15 (A)
56	J	07	G.9 (D)
57	C	09	8.11 (B)
58	J	05	A.9 (D)
59	C	04	A.7 (B)
60	H	01	A.1 (C)

TAKS Exit Level Mathematics

For a more complete description of the objectives measured, please refer to the Revised TAKS Information Booklet for Exit Level Mathematics at http://www.tea.state.tx.us/student.assessment/taks/booklets/index.html.

Objective 1: The student will describe functional relationships in a variety of ways.

(A.1) **Foundations for functions.** The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways. The student is expected to

  (A) describe independent and dependent quantities in functional relationships;

  (B) [gather and record data and] use data sets to determine functional relationships between quantities;

  (C) describe functional relationships for given problem situations and write equations or inequalities to answer questions arising from the situations;

  (D) represent relationships among quantities using [concrete] models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities; and

  (E) interpret and make decisions, predictions, and critical judgments from functional relationships.

Objective 2: The student will demonstrate an understanding of the properties and attributes of functions.

(A.2) **Foundations for functions.** The student uses the properties and attributes of functions. The student is expected to

  (A) identify [and sketch] the general forms of linear ($y = x$) and quadratic ($y = x^2$) parent functions;

  (B) identify mathematical domains and ranges and determine reasonable domain and range values for given situations, both continuous and discrete;

  (C) interpret situations in terms of given graphs [or create situations that fit given graphs]; and

  (D) [collect and] organize data, [make and] interpret scatterplots (including recognizing positive, negative, or no correlation for data approximating linear situations), and model, predict, and make decisions and critical judgments in problem situations.

(A.3) **Foundations for functions.** The student understands how algebra can be used to express generalizations and recognizes and uses the power of symbols to represent situations. The student is expected to

  (A) use symbols to represent unknowns and variables; and

  (B) look for patterns and represent generalizations algebraically.

(A.4) **Foundations for functions.** The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations. The student is expected to

  (A) find specific function values, simplify polynomial expressions, transform and solve equations, and factor as necessary in problem situations;

(B)   use the commutative, associative, and distributive properties to simplify algebraic expressions; and

(C)   connect equation notation with function notation, such as $y = x + 1$ and $f(x) = x + 1$.

Objective 3:   The student will demonstrate an understanding of linear functions.

(A.5) **Linear functions.** The student understands that linear functions can be represented in different ways and translates among their various representations. The student is expected to

(A)   determine whether or not given situations can be represented by linear functions; and

(C)   use, translate, and make connections among algebraic, tabular, graphical, or verbal descriptions of linear functions.

(A.6) **Linear functions.** The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations. The student is expected to

(A)   develop the concept of slope as rate of change and determine slopes from graphs, tables, and algebraic representations;

(B)   interpret the meaning of slope and intercepts in situations using data, symbolic representations, or graphs;

(C)   investigate, describe, and predict the effects of changes in m and b on the graph of $y = mx + b$;

(D)   graph and write equations of lines given characteristics such as two points, a point and a slope, or a slope and y-intercept;

(E)   determine the intercepts of the graphs of linear functions and zeros of linear functions from graphs, tables, and algebraic representations;

(F)   interpret and predict the effects of changing slope and y-intercept in applied situations; and

(G)   relate direct variation to linear functions and solve problems involving proportional change.

Objective 4:   The student will formulate and use linear equations and inequalities.

(A.7) **Linear functions.** The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. The student is expected to

(A)   analyze situations involving linear functions and formulate linear equations or inequalities to solve problems;

(B)   investigate methods for solving linear equations and inequalities using [concrete] models, graphs, and the properties of equality, select a method, and solve the equations and inequalities; and

(C)   interpret and determine the reasonableness of solutions to linear equations and inequalities.

(A.8) **Linear functions.** The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. The student is expected to

    (A)   analyze situations and formulate systems of linear equations in two unknowns to solve problems;

    (B)   solve systems of linear equations using [concrete] models, graphs, tables, and algebraic methods; and

    (C)   interpret and determine the reasonableness of solutions to systems of linear equations.

Objective 5:   The student will demonstrate an understanding of quadratic and other nonlinear functions.

(A.9) **Quadratic and other nonlinear functions.** The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions. The student is expected to

    (B)   investigate, describe, and predict the effects of changes in a on the graph of $y = ax^2 + c$;

    (C)   investigate, describe, and predict the effects of changes in c on the graph of $y = ax^2 + c$; and

    (D)   analyze graphs of quadratic functions and draw conclusions.

(A.10) **Quadratic and other nonlinear functions.** The student understands there is more than one way to solve a quadratic equation and solves them using appropriate methods. The student is expected to

    (A)   solve quadratic equations using [concrete] models, tables, graphs, and algebraic methods; and

    (B)   make connections among the solutions (roots) of quadratic equations, the zeros of their related functions, and the horizontal intercepts (x-intercepts) of the graph of the function.

(A.11) **Quadratic and other nonlinear functions.** The student understands there are situations modeled by functions that are neither linear nor quadratic and models the situations. The student is expected to

    (A)   use [patterns to generate] the laws of exponents and apply them in problem-solving situations.

Objective 6:   The student will demonstrate an understanding of geometric relationships and spatial reasoning.

(G.4) **Geometric structure.** The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to

    (A)   select an appropriate representation ([concrete,] pictorial, graphical, verbal, or symbolic) in order to solve problems.

(G.5) **Geometric patterns.** The student uses a variety of representations to describe geometric relationships and solve problems. The student is expected to

  (A) use numeric and geometric patterns to develop algebraic expressions representing geometric properties;

  (B) use numeric and geometric patterns to make generalizations about geometric properties, including properties of polygons, ratios in similar figures and solids, and angle relationships in polygons and circles;

  (C) use properties of transformations and their compositions to make connections between mathematics and the real world, such as tessellations; and

  (D) identify and apply patterns from right triangles to solve meaningful problems, including special right triangles (45-45-90 and 30-60-90) and triangles whose sides are Pythagorean triples.

(G.10) **Congruence and the geometry of size.** The student applies the concept of congruence to justify properties of figures and solve problems. The student is expected to

  (A) use congruence transformations to make conjectures and justify properties of geometric figures including figures represented on a coordinate plane.

Objective 7: **The student will demonstrate an understanding of two- and three-dimensional representations of geometric relationships and shapes.**

(G.6) **Dimensionality and the geometry of location.** The student analyzes the relationship between three-dimensional geometric figures and related two-dimensional representations and uses these representations to solve problems. The student is expected to

  (B) use nets to represent [and construct] three-dimensional geometric figures; and

  (C) use orthographic and isometric views of three-dimensional geometric figures to represent [and construct] three-dimensional geometric figures and solve problems.

(G.7) **Dimensionality and the geometry of location.** The student understands that coordinate systems provide convenient and efficient ways of representing geometric figures and uses them accordingly. The student is expected to

  (A) use one- and two-dimensional coordinate systems to represent points, lines, rays, line segments, and figures;

  (B) use slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and [special segments of] triangles and other polygons; and

  (C) derive and use formulas involving length, slope, and midpoint.

(G.9) **Congruence and the geometry of size.** The student analyzes properties and describes relationships in geometric figures. The student is expected to

  (D) analyze the characteristics of polyhedra and other three-dimensional figures and their component parts based on explorations and [concrete] models.

Objective 8: The student will demonstrate an understanding of the concepts and uses of measurement and similarity.

(G.8) **Congruence and the geometry of size.** The student uses tools to determine measurements of geometric figures and extends measurement concepts to find perimeter, area, and volume in problem situations. The student is expected to

   (A)   find areas of regular polygons, circles, and composite figures;

   (B)   find areas of sectors and arc lengths of circles using proportional reasoning;

   (C)   [derive,] extend, and use the Pythagorean Theorem; and

   (D)   find surface areas and volumes of prisms, pyramids, spheres, cones, cylinders, and composites of these figures in problem situations.

(G.11) **Similarity and the geometry of shape.** The student applies the concepts of similarity to justify properties of figures and solve problems. The student is expected to

   (A)   use and extend similarity properties and transformations to explore and justify conjectures about geometric figures;

   (B)   use ratios to solve problems involving similar figures;

   (C)   [develop,] apply, and justify triangle similarity relationships, such as right triangle ratios, [trigonometric ratios,] and Pythagorean triples using a variety of methods; and

   (D)   describe the effect on perimeter, area, and volume when one or more dimensions of a figure are changed and apply this idea in solving problems.

Objective 9: The student will demonstrate an understanding of percents, proportional relationships, probability, and statistics in application problems.

(8.3) **Patterns, relationships, and algebraic thinking.** The student identifies proportional or non-proportional linear relationships in problem situations and solves problems. The student is expected to

   (B)   estimate and find solutions to application problems involving percents and other proportional relationships, such as similarity and rates.

(8.11) **Probability and statistics.** The student applies concepts of theoretical and experimental probability to make predictions. The student is expected to

   (A)   find the probabilities of dependent and independent events; and

   (B)   use theoretical probabilities and experimental results to make predictions and decisions.

(8.12) **Probability and statistics.** The student uses statistical procedures to describe data. The student is expected to

   (A)   select the appropriate measure of central tendency or range to describe a set of data and justify the choice for a particular situation; and

    (C)   select and use an appropriate representation for presenting and displaying relationships among collected data, including line plots, line graphs, [stem and leaf plots,] circle graphs, bar graphs, box and whisker plots, histograms, and Venn diagrams, with and without the use of technology.

(8.13) **Probability and statistics.** The student evaluates predictions and conclusions based on statistical data. The student is expected to

    (B)   recognize misuses of graphical or numerical information and evaluate predictions and conclusions based on data analysis.

Objective 10: **The student will demonstrate an understanding of the mathematical processes and tools used in problem solving.**

(8.14) **Underlying processes and mathematical tools.** The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school. The student is expected to

    (A)   identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;

    (B)   use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; and

    (C)   select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem.

(8.15) **Underlying processes and mathematical tools.** The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models. The student is expected to

    (A)   communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models.

(8.16) **Underlying processes and mathematical tools.** The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to

    (A)   make conjectures from patterns or sets of examples and nonexamples; and

    (B)   validate his/her conclusions using mathematical properties and relationships.

Texas Assessment of Knowledge and Skills - Answer Key

Grade: Exit Level
Subject: Science
Administration: April 2009

The letter **B** indicates that the student expectation listed is from the Biology I TEKS.

The letter **I** indicates that the student expectation listed is from the Integrated Physics and Chemistry TEKS.

Item Number	Correct Answer	Objective Measured	Student Expectations
01	A	02	B.10 (A)
02	J	05	I.6 (D)
03	B	04	I.9 (D)
04	H	01	B.2 (A)
05	A	03	B.13 (A)
06	J	02	B.6 (C)
07	C	01	B.2 (C)
08	F	05	I.4 (B)
09	D	01	I.3 (A)
10	G	04	I.8 (A)
11	D	01	B.2 (B)
12	F	02	B.10 (A)
13	B	04	I.9 (B)
14	G	03	B.7 (A)
15	A	01	B.2 (C)
16	J	02	B.6 (A)
17	B	01	B.2 (A)
18	G	05	I.6 (A)
19	D	04	I.8 (A)
20	F	01	B.2 (A)
21	B	04	I.9 (A)
22	2.4	05	I.4 (A)
23	C	01	B.1 (A)
24	J	03	B.4 (D)
25	C	05	I.4 (D)
26	J	05	I.6 (B)
27	A	04	I.7 (A)
28	H	05	I.6 (A)
29	A	02	B.4 (B)
30	J	04	I.8 (C)
31	A	01	B.2 (C)
32	G	03	B.12 (B)
33	A	05	I.5 (B)
34	G	04	I.9 (A)
35	D	04	I.7 (A)
36	F	02	B.6 (B)
37	B	03	B.12 (E)
38	F	01	B.2 (D)
39	A	01	B.2 (B)
40	J	03	B.4 (C)
41	C	02	B.10 (B)
42	F	01	I.3 (B)
43	B	03	B.7 (B)
44	J	01	B.2 (A)
45	A	05	I.4 (A)
46	H	03	B.9 (D)
47	B	04	I.7 (D)
48	H	05	I.4 (B)
49	D	01	I.3 (A)
50	H	02	B.8 (C)
51	A	01	I.3 (B)
52	H	05	I.4 (A)
53	B	01	B.2 (D)
54	H	04	I.8 (C)
55	B	01	B.2 (D)

TAKS Exit Level Science

For a more complete description of the objectives measured, please refer to the Revised TAKS Information Booklet for Exit Level Science at
http://www.tea.state.tx.us/student.assessment/taks/booklets/index.html.

Objective 1: **The student will demonstrate an understanding of the nature of science.**

Biology (1) and Integrated Physics and Chemistry (1) Scientific Processes. The student, for at least 40% of instructional time, conducts field and laboratory investigations using safe, environmentally appropriate, and ethical practices. The student is expected to

    (A)   demonstrate safe practices during field and laboratory investigations.

Biology (2) and Integrated Physics and Chemistry (2) Scientific Processes. The student uses scientific methods during field and laboratory investigations. The student is expected to

    (A)   plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting equipment and technology;

    (B)   collect data and make measurements with precision;

    (C)   organize, analyze, evaluate, make inferences, and predict trends from data; and

    (D)   communicate valid conclusions.

Integrated Physics and Chemistry (3) Scientific Processes. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to

    (A)   analyze, review, [and critique] scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information; and

    (B)   draw inferences based on data related to [promotional materials for] products and services.

Objective 2: **The student will demonstrate an understanding of the organization of living systems.**

Biology (4) Science Concepts. The student knows that cells are the basic structures of all living things and have specialized parts that perform specific functions, and that viruses are different from cells and have different properties and functions. The student is expected to

    (B)   investigate and identify cellular processes including homeostasis, permeability, energy production, transportation of molecules, disposal of wastes, function of cellular parts, and synthesis of new molecules.

Biology (6) Science Concepts. The student knows the structures and functions of nucleic acids in the mechanisms of genetics. The student is expected to

    (A)   describe components of deoxyribonucleic acid (DNA), and illustrate how information for specifying the traits of an organism is carried in the DNA;

    (B)   explain replication, transcription, and translation using models of DNA and ribonucleic acid (RNA); and

(C)   identify and illustrate how changes in DNA cause mutations and evaluate the significance of these changes.

Biology (8) Science Concepts. The student knows applications of taxonomy and can identify its limitations. The student is expected to

(C)   identify characteristics of kingdoms including monerans, protists, fungi, plants, and animals. **

**The TAKS will use the most current classification system.

Biology (10) Science Concepts. The student knows that, at all levels of nature, living systems are found within other living systems, each with its own boundary and limits. The student is expected to

(A)   interpret the functions of systems in organisms including circulatory, digestive, nervous, endocrine, reproductive, integumentary, skeletal, respiratory, muscular, excretory, and immune; and

(B)   compare the interrelationships of organ systems to each other and to the body as a whole.

Objective 3:   **The student will demonstrate an understanding of the interdependence of organisms and the environment.**

Biology (4) Science Concepts. The student knows that cells are the basic structures of all living things and have specialized parts that perform specific functions, and that viruses are different from cells and have different properties and functions. The student is expected to

(C)   compare the structures and functions of viruses to cells and describe the role of viruses in causing diseases and conditions such as acquired immune deficiency syndrome, common colds, smallpox, influenza, and warts; and

(D)   identify and describe the role of bacteria in maintaining health such as in digestion and in causing diseases such as in streptococcus infections and diphtheria.

Biology (7) Science Concepts. The student knows the theory of biological evolution. The student is expected to

(A)   identify evidence of change in species using fossils, DNA sequences, anatomical similarities, physiological similarities, and embryology; and

(B)   illustrate the results of natural selection in speciation, diversity, phylogeny, adaptation, behavior, and extinction.

Biology (9) Science Concepts. The student knows metabolic processes and energy transfers that occur in living organisms. The student is expected to

(D)   analyze the flow of matter and energy through different trophic levels and between organisms and the physical environment.

Biology (12) Science Concepts. The student knows that interdependence and interactions occur within an ecosystem. The student is expected to

(B)   interpret interactions among organisms exhibiting predation, parasitism, commensalism, and mutualism; and

(E)   investigate and explain the interactions in an ecosystem including food chains, food webs, and food pyramids.

Biology (13) Science Concepts. The student knows the significance of plants in the environment. The student is expected to

(A)   evaluate the significance of structural and physiological adaptations of plants to their environments.

Objective 4:   The student will demonstrate an understanding of the structures and properties of matter.

Integrated Physics and Chemistry (7) Science Concepts. The student knows relationships exist between properties of matter and its components. The student is expected to

(A)   investigate and identify properties of fluids including density, viscosity, and buoyancy; and

(D)   relate the chemical behavior of an element including bonding, to its placement on the periodic table.

Integrated Physics and Chemistry (8) Science Concepts. The student knows that changes in matter affect everyday life. The student is expected to

(A)   distinguish between physical and chemical changes in matter such as oxidation, digestion, changes in states, and stages in the rock cycle; and

(C)   investigate and identify the law of conservation of mass.

Integrated Physics and Chemistry (9) Science Concepts. The student knows how solution chemistry is a part of everyday life. The student is expected to

(A)   relate the structure of water to its function [as the universal solvent];

(B)   relate the concentration of ions in a solution to physical and chemical properties such as pH, electrolytic behavior, and reactivity; and

(D)   demonstrate how various factors influence solubility including temperature, pressure, and nature of the solute and solvent.

Objective 5:   The student will demonstrate an understanding of motion, forces, and energy.

Integrated Physics and Chemistry (4) Science Concepts. The student knows concepts of force and motion evident in everyday life. The student is expected to

(A)   calculate speed, momentum, acceleration, work, and power in systems such as in the human body, moving toys, and machines;

(B) investigate and describe applications of Newton's laws such as in vehicle restraints, sports activities, geological processes, and satellite orbits; and

(D) investigate and demonstrate [mechanical advantage and] efficiency of various machines such as levers, motors, wheels and axles, pulleys, and ramps.

Integrated Physics and Chemistry (5) Science Concepts. The student knows the effects of waves on everyday life. The student is expected to

(B) demonstrate wave interactions including interference, polarization, reflection, refraction, and resonance within various materials.

Integrated Physics and Chemistry (6) Science Concepts. The student knows the impact of energy transformations in everyday life. The student is expected to

(A) describe the law of conservation of energy;

(B) investigate and demonstrate the movement of heat through solids, liquids, and gases by convection, conduction, and radiation; and

(D) investigate and compare economic and environmental impacts of using various energy sources such as rechargeable or disposable batteries and solar cells.

Texas Assessment of Knowledge and Skills - Answer Key

Grade: Exit Level
Subject: Social Studies
Administration: April 2009

The letter W indicates that the student expectation listed is from the World History TEKS.

The letter G indicates that the student expectation listed is from the World Geography TEKS.

The letter H indicates that the student expectation listed is from the U.S. History Since Reconstruction TEKS.

Item Number	Correct Answer	Objective Measured	Student Expectations
01	B	05	G.8 (B)
02	H	01	8.4 (B)
03	C	02	W.23 (A)
04	F	03	H.2 (C)
05	B	04	8.22 (B)
06	J	03	H.13 (B)
07	C	01	H.6 (B)
08	J	02	G.1 (B)
09	B	05	G.8 (B)
10	H	05	H.24 (C)
11	B	03	H.13 (E)
12	F	05	G.8 (B)
13	B	01	H.3 (B)
14	H	03	H.7 (B)
15	B	02	H.10 (A)
16	J	05	G.21 (C)
17	B	04	8.17 (B)
18	H	02	G.1 (B)
19	C	05	G.8 (B)
20	F	03	G.10 (C)
21	C	04	H.7 (C)
22	G	02	H.9 (A)
23	D	03	H.21 (A)
24	F	04	8.16 (D)
25	C	01	H.3 (A)
26	F	03	H.22 (C)
27	A	01	H.5 (B)
28	G	03	H.14 (E)
29	D	01	H.6 (E)
30	H	04	8.20 (B)
31	D	05	G.21 (C)
32	H	01	H.1 (A)
33	B	04	8.20 (A)
34	G	02	G.1 (A)
35	D	03	H.22 (A)
36	G	04	H.4 (A)
37	C	01	H.1 (B)
38	F	01	H.6 (F)
39	B	01	8.16 (C)
40	H	02	H.11 (A)
41	A	05	W.26 (C)
42	F	01	H.6 (D)
43	C	01	H.6 (A)
44	G	03	H.23 (A)
45	C	03	H.14 (A)
46	J	05	H.24 (F)
47	A	03	G.5 (B)
48	F	02	G.6 (A)
49	D	01	H.3 (D)
50	H	04	H.17 (A)
51	B	04	8.3 (A)
52	H	05	H.24 (A)
53	C	02	H.8 (B)
54	F	03	H.4 (B)
55	C	05	W.26 (C)

TAKS Exit Level Social Studies

For a more complete description of the objectives measured, please refer to the Revised TAKS Information Booklet for Exit Level Social Studies at
http://www.tea.state.tx.us/student.assessment/taks/booklets/index.html.

Objective 1: **The student will demonstrate an understanding of issues and events in U.S. history.**

(8.1) **History.** The student understands traditional historical points of reference in U.S. history through 1877. The student is expected to

    (C)   explain the significance of the following dates: [1607,] 1776, 1787, [1803,] and 1861-1865.

(8.4) **History.** The student understands significant political and economic issues of the revolutionary era. The student is expected to

    (B)   explain the roles played by significant individuals during the American Revolution, including [Samuel Adams, Benjamin Franklin, King George III,] Thomas Jefferson, [the Marquis de Lafayette, Thomas Paine,] and George Washington; and

    (C)   explain the issues surrounding [important events of] the American Revolution, including declaring independence; [writing] the Articles of Confederation, [fighting the battles of Lexington, Concord, Saratoga, and Yorktown; and signing the Treaty of Paris].

(8.16) **Government.** The student understands the American beliefs and principles reflected in the U.S. Constitution and other important historic documents. The student is expected to

    (C)   identify colonial grievances listed in the Declaration of Independence and explain how those grievances were addressed in the U.S. Constitution and the Bill of Rights.

(US1) **History.** The student understands traditional historical points of reference in U.S. history from 1877 to the present. The student is expected to

    (A)   identify the major eras in U.S. history from 1877 to the present and describe their defining characteristics;

    (B)   apply absolute and relative chronology through the sequencing of significant individuals, events, and time periods; and

    (C)   explain the significance of the following dates: 1898, 1914-1918, 1929, 1941-1945, [and 1957].

(US3) **History.** The student understands the emergence of the United States as a world power between 1898 and 1920. The student is expected to

    (A)   explain why significant events and individuals, including the Spanish-American War, U.S. expansionism, [Henry Cabot Lodge, Alfred Thayer Mahan,] and Theodore Roosevelt, moved the United States into the position of a world power;

    (B)   identify the reasons for U.S. involvement in World War I, including unrestricted submarine warfare; and

    (D)   analyze major issues raised by U.S. involvement in World War I, Wilson's Fourteen Points, and the Treaty of Versailles.

(US5) **History.** The student understands significant individuals, events, and issues of the 1920s. The student is expected to

  (A) analyze causes and effects of significant issues such as immigration, the Red Scare, Prohibition, and the changing role of women; and

  (B) analyze the impact of significant individuals such as Clarence Darrow, William Jennings Bryan, Henry Ford, and Charles A. Lindbergh.

(US6) **History.** The student understands the impact of significant national and international decisions and conflicts from World War II and the Cold War to the present on the United States. The student is expected to

  (A) identify reasons for U.S. involvement in World War II, including the growth of dictatorships and the attack on Pearl Harbor;

  (B) analyze major issues and events of World War II such as fighting the war on multiple fronts, the internment of Japanese-Americans, the Holocaust, the battle of Midway, the invasion of Normandy, and the development of and Harry Truman's decision to use the atomic bomb;

  (D) describe U.S. responses to Soviet aggression after World War II, including the Truman Doctrine, the Marshall Plan, the North Atlantic Treaty Organization, [and the Berlin airlift];

  (E) analyze the conflicts in Korea and Vietnam and describe their domestic and international effects; and

  (F) describe the impact of the GI Bill, [the election of 1948,] McCarthyism, and Sputnik I.

Objective 2: The student will demonstrate an understanding of geographic influences on historical issues and events.

(US8) **Geography.** The student uses geographic tools to collect, analyze, and interpret data. The student is expected to

  (B) [pose and] answer questions about geographic distributions and patterns shown on maps, graphs, charts, models, [and databases].

(US9) **Geography.** The student understands the impact of geographic factors on major events. The student is expected to

  (A) analyze the effects of physical and human geographic factors on major events including the building of the Panama Canal.

(US10) **Geography.** The student understands the effects of migration and immigration on American society. The student is expected to

  (A) analyze the effects of changing demographic patterns resulting from migration within the United States; and

  (B) analyze the effects of changing demographic patterns resulting from immigration to the United States.

TAKS Exit Level Social Studies (continued)

(US11) **Geography.** The student understands the relationship between population growth and modernization on the physical environment. The student is expected to

(A) identify the effects of population growth [and distribution and predict future effects] on the physical environment.

(WG1) **History.** The student understands how geographic contexts (the geography of places in the past) and processes of spatial exchange (diffusion) influenced events in the past and helped to shape the present. The student is expected to

(A) analyze the effects of physical and human geographic patterns and processes on events in the past [and describe their effects on present conditions, including significant physical features and environmental conditions that influenced migration patterns in the past and shaped the distribution of culture groups today] (correlates with WH12B); and

(B) trace the spatial diffusion of a phenomenon and describe its effects on regions of contact such as the spread of bubonic plague, the diffusion and exchange of foods between the New and Old Worlds, [or the diffusion of American slang] (correlates with WH11B).

(WG6) **Geography.** The student understands the types and patterns of settlement, the factors that affect where people settle, and processes of settlement development over time. The student is expected to

(A) [locate settlements and] observe patterns in the size and distribution of cities using maps, graphics, and other information (correlates with WH26C).

(WH23) **Science, technology, and society.** The student understands how major scientific and mathematical discoveries and technological innovations have affected societies throughout history. The student is expected to

(A) give examples of [major mathematical and scientific discoveries and] technological innovations that occurred at different periods in history and describe the changes produced by these discoveries and innovations (correlates with WG19A and WG20A).

Objective 3: The student will demonstrate an understanding of economic and social influences on historical issues and events.

(US2) **History.** The student understands the political, economic, and social changes in the United States from 1877 to 1898. The student is expected to

(B) analyze economic issues such as industrialization, the growth of railroads, the growth of labor unions, farm issues, and the rise of big business; and

(C) analyze social issues such as the treatment of minorities, child labor, growth of cities, and problems of immigrants.

(US4) **History.** The student understands the effects of reform and third party movements on American society. The student is expected to

(B) evaluate the impact of reform leaders such as Susan B. Anthony, W.E.B. DuBois, [and Robert LaFollette] on American society.

(US7) **History.** The student understands the impact of the American civil rights movement. The student is expected to

   (B)   identify significant leaders of the civil rights movement, including Martin Luther King, Jr.

(US13) **Economics.** The student understands significant economic developments between World War I and World War II. The student is expected to

   (A)   analyze causes of economic growth and prosperity in the 1920s;

   (B)   analyze the causes of the Great Depression, including the decline in worldwide trade, the stock market crash, and bank failures;

   (C)   analyze the effects of the Great Depression on the U.S. economy and government; and

   (E)   analyze how various New Deal agencies and programs such as the Federal Deposit Insurance Corporation, [the Securities and Exchange Commission,] and Social Security continue to affect the lives of U.S. citizens.

(US14) **Economics.** The student understands the economic effects of World War II, the Cold War, and increased worldwide competition on contemporary society. The student is expected to

   (A)   describe the economic effects of World War II on the home front, including rationing, female employment, and the end of the Great Depression; and

   (E)   describe the dynamic relationship between U.S. international trade policies and the U.S. free enterprise system.

(US21) **Culture.** The student understands how people from various groups, including racial, ethnic, and religious groups, adapt to life in the United States and contribute to our national identity. The student is expected to

   (A)   explain actions taken by people from racial, ethnic, and religious groups to expand economic opportunities and political rights in American society; and

   (D)   identify the political, social, and economic contributions of women to American society.

(US22) **Science, technology, and society.** The student understands the impact of science and technology on the economic development of the United States. The student is expected to

   (A)   explain the effects of scientific discoveries and technological innovations such as electric power, the telegraph and telephone, petroleum-based products, medical vaccinations, and computers on the development of the United States; and

   (C)   analyze the impact of technological innovations on the nature of work, the American labor movement, and businesses.

(US23) **Science, technology, and society.** The student understands the influence of scientific discoveries and technological innovations on daily life in the United States. The student is expected to

   (A)   analyze how scientific discoveries and technological innovations, including those in transportation and communication, have changed the standard of living in the United States.

(WG5) **Geography.** The student understands how political, economic, and social processes shape cultural patterns and characteristics in various places and regions. The student is expected to

    (B)   analyze political, economic, social, and demographic data to determine the level of development and standard of living in nations (correlates with WH14C).

(WG10) **Economics.** The student understands the distribution and characteristics of economic systems throughout the world. The student is expected to

    (C)   compare the ways people satisfy their basic needs through the production of goods and services such as subsistence agriculture versus market-oriented agriculture or cottage industries versus commercial industries (correlates with WH14C).

Objective 4:   **The student will demonstrate an understanding of political influences on historical issues and events.**

(8.3)   **History.** The student understands the foundations of representative government in the United States. The student is expected to

    (A)   explain the reasons for the growth of representative government and institutions during the colonial period.

(8.16) **Government.** The student understands the American beliefs and principles reflected in the U.S. Constitution and other important historic documents. The student is expected to

    (A)   identify the influence of ideas from historic documents including the Magna Carta, the English Bill of Rights, [the Mayflower Compact,] the Declaration of Independence, the Federalist Papers, [and selected anti-federalist writings] on the U.S. system of government; and

    (D)   analyze how the U.S. Constitution reflects the principles of limited government, republicanism, checks and balances, federalism, separation of powers, popular sovereignty, and individual rights.

(8.17) **Government.** The student understands the process of changing the U.S. Constitution and the impact of amendments on American society. The student is expected to

    (B)   describe the impact of 19th-century amendments including the 13th, 14th, and 15th amendments on life in the United States.

(8.18) **Government.** The student understands the dynamic nature of the powers of the national government and state governments in a federal system. The student is expected to

    (B)   describe historical conflicts arising over the issue of states' rights, including the Nullification Crisis and the Civil War.

(8.20) **Citizenship.** The student understands the rights and responsibilities of citizens of the United States. The student is expected to

    (A)   define and give examples of unalienable rights; and

    (B)   summarize rights guaranteed in the Bill of Rights.

(8.22) **Citizenship.** The student understands the importance of the expression of different points of view in a democratic society. The student is expected to

  (B)   describe the importance of free speech and press in a democratic society.

(US4) **History.** The student understands the effects of reform and third party movements on American society. The student is expected to

  (A)   evaluate the impact of Progressive Era reforms including [initiative, referendum, recall, and] the passage of the 16th and 17th amendments.

(US7) **History.** The student understands the impact of the American civil rights movement. The student is expected to

  (A)   trace the historical development of the civil rights movement in the 18th, 19th, and 20th centuries, including the 13th, 14th, 15th amendments; and

  (C)   evaluate government efforts, including the Civil Rights Act of 1964 to achieve equality in the United States.

(US17) **Government.** The student understands the impact of constitutional issues on American society in the 20th century. The student is expected to

  (A)   analyze the effects of 20th-century landmark U.S. Supreme Court decisions such as *Brown v. Board of Education*, [*Regents of the University of California v. Bakke*, and *Reynolds v. Sims*].

(US18) **Citizenship.** The student understands efforts to expand the democratic process. The student is expected to

  (B)   evaluate various means of achieving equality of political rights, including the 19th, 24th, and 26th amendments.

Objective 5:   **The student will use critical thinking skills to analyze social studies information.**

(US24) **Social studies skills.** The student applies critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology. The student is expected to

  (A)   [locate and] use primary and secondary sources [such as computer software, databases, media and news services, biographies, interviews, and artifacts] to acquire information about the United States (correlates with 8.30A and WH25B);

  (B)   analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations [and predictions], and drawing inferences and conclusions (correlates with 8.30B and WH25C);

  (C)   explain and apply different methods that historians use to interpret the past, including the use of primary and secondary sources, points of view, frames of reference, and historical context (correlates with 8.30D and WH25D); and

  (F)   identify bias in written, [oral,] and visual material (correlates with 8.30F and WH25G).

(WG8) **Geography.** The student understands how people, places, and environments are connected and interdependent. The student is expected to

    (B)   compare ways that humans depend on, adapt to, and modify the physical environment using [local,] state, national, and international human activities in a variety of cultural and technological contexts (correlates with WH12B and WH12C).

(WG21) **Social studies skills.** The student applies critical-thinking skills to organize and use information acquired from a variety of sources including electronic technology. The student is expected to

    (C)   [construct and] interpret maps to answer geographic questions, infer geographic relationships, and analyze geographic change (correlates with WH11B and WH12C).

(WH26) **Social studies skills.** The student communicates in written, oral, and visual forms. The student is expected to

    (C)   interpret [and create databases, research outlines, bibliographies, and] visuals including graphs, charts, timelines, and maps (correlates with WG21C).