Name: _____ **Class:** _____ **Date:** _____ **ID: A**

8th Grade FCAT Packet

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1. $\frac{3}{5} + \frac{1}{3} = ?$

   A. $\frac{4}{5}$
   B. $\frac{8}{15}$
   C. $\frac{1}{2}$
   D. $\frac{4}{15}$
   E. $\frac{14}{15}$

2. A 150-pound person contains approximately 0.00024 pounds of the element cobalt. Express this weight of cobalt in scientific notation.

   A. 0.24×10^{-3}
   B. 24×10^{-4}
   C. 2.4×10^{4}
   D. 2.4×10^{-3}
   E. 2.4×10^{-4}

3. Which of these expressions represents the greatest number?

   A. $\left|-11 + (-4)\right| - |-4|$
   B. $-|7 - 3| + |-9 - 11|$
   C. $\left|-8 + (-2)\right| + |-7|$
   D. $\left|-6 - (-12)\right| - 4$
   E. $-|-8| + |-9| + |4 - 8|$

4. What is the eighteenth term in the arithmetic sequence 87, 94, 101, ...?

   A. 192
   B. 206
   C. 220
   D. 199
   E. 213

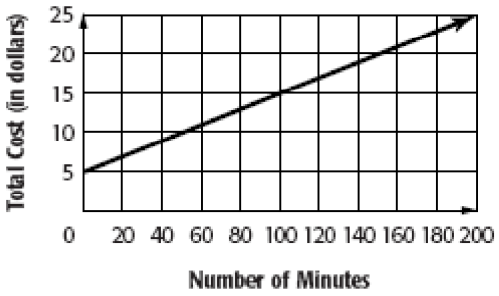
5. Each soccer player was given the same number of candy bars to sell for their team fundraiser. The results are shown in the table below.

Candy Bar Sales	
Name	Percent Sold
Tanya	82%
Bill	$\frac{16}{20}$
Raquel	0.78
Candace	$\frac{42}{50}$

Which shows the soccer players in order from greatest to fewest candy bars sold?

A. Tanya, Bill, Raquel, Candace
B. Raquel, Bill, Tanya, Candace
C. Tanya, Candace, Bill, Raquel
D. Candace, Tanya, Bill, Raquel

6. Carlos bought a new cell phone. The graph below represents the relationship between the number of minutes he uses and the total cost.



If c is total cost and m is the number of minutes, which equation can be used to find the total cost for any number of minutes?

A. $c = 0.1 + 5m$
B. $c = 5 + 0.1m$
C. $c = 5 + 0.5m$
D. $c = 5 + 5m$

7. A marina rents speedboats at a rate of $35 for the first hour and $25 for each additional hour. Which table represents the cost of renting a speedboat at the marina for 2, 3, or 4 hours?

A.

Hours	Cost
2	$35
3	$60
4	$85

C.

Hours	Cost
2	$50
3	$75
4	$100

B.

Hours	Cost
2	$35
3	$70
4	$105

D.

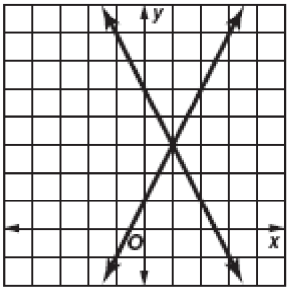
Hours	Cost
2	$60
3	$85
4	$110

8. Florida's state shell is the horse conch, the shell of a large snail found on both coasts of Florida. Young horse conchs have orange shells, while the shells of adult conchs have orange apertures, or shell openings.

   On a trip to the beach, Fatima counted 24 horse conch shells. If the number of adult conch shells was one-fifth the number of young conch shells, how many adult conch shells did Fatima count?

A. 4
B. 9
C. 19
D. 20

9. The graphs of $f(x) = 2x + 1$ and $f(x) = 5 - 2x$ are shown below.



   According to the graph, what is the solution to the system of these equations?

A. (1, 3)
B. (2, 4)
C. (3, 1)
D. (4, 2)

10. The table below shows the heights, in inches, of two plants over a four-week period.

Bean Plant Heights		
	Plant A	Plant B
Starting height	3	5
Week 1	6	6
Week 2	9	7
Week 3	12	8
Week 4	15	9

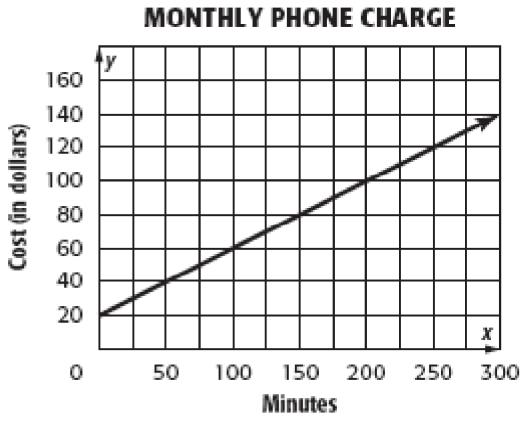
If both plants continue to grow at the same rate, when will Plant A be twice as tall as Plant B?

A. Week 5
B. Week 6
C. Week 7
D. Week 8

11. Haruki has $20 in his savings account. Each week he will add $5 to it. He wants to draw a graph that shows how much money is in his savings account over time, starting with $20. What is the equation of the line?

A. $y = 25x$
B. $y = 20x + 5$
C. $y = 5x + 20$
D. $y = 5x$

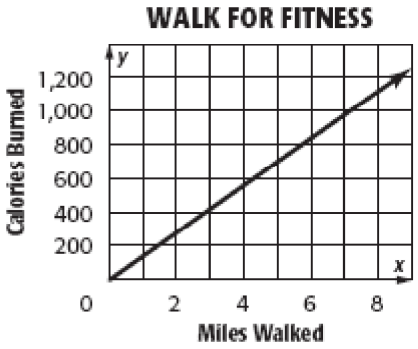
12. The graph below represents the amount Samira pays for her cell phone service: a monthly fee plus a charge for each minute she uses her phone.



What does the y-intercept indicate?

A. Her monthly fee is $0.
B. Her rate per minute is $0.40.
C. Her monthly fee is $20.
D. Her rate per minute is $0.20.

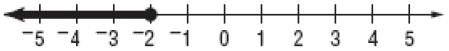
13. Linda saw the following graph in a fitness magazine.



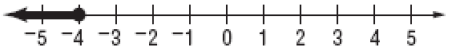
Which does the slope of the graph represent?

A. total calories burned
B. total distance walked
C. calories burned per mile walked
D. miles walked per hour

14. Which graph shows the solution set for the inequality $-2x - 2 \leq 6$?

A.


B.


C.


D.


15. Rashid owns a light bulb that is guaranteed to last at least 2 years. He has already been using the bulb for 9 months. Which inequality best describes the number of months m that the bulb will continue to work?

A. $m \leq 15$
B. $m \leq 7$
C. $m \geq 15$
D. $m \geq 7$

16. Neil solved an inequality and graphed the solution set as shown below.

Which inequality did Neil solve and graph?

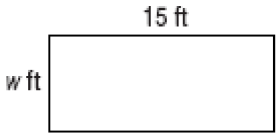
A. $2x \leq 7$
B. $x + 2.5 \geq 6$
C. $x - 7 < 1.5$
D. $4x > 14$

17. In 1987, the American alligator was adopted as the official state reptile of Florida. Reptiles are cold-blooded, so one way the alligators warm their body temperature is by lying in the sun. When the temperature gets too cold, the alligators become dormant.

    The inequality $2t - 5 < 105$ can be solved to find t, the temperatures in degrees Fahrenheit at which these reptiles are dormant. Which of the following best describes this range of temperatures?

    A. $t < 10°F$
    B. $t > 10°F$
    C. $t < 45°F$
    D. $t < 55°F$

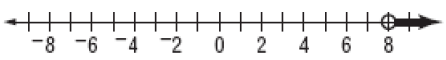
18. Vinny is clearing a rectangular space for a garden. The length of the garden will be 15 feet as shown below.

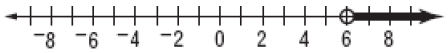


    Vinny wants the area of the garden to be at least 120 square feet. He writes the inequality $15w \geq 120$ to find w, the width for his garden. Which inequality shows the solution set for $15w \geq 120$?

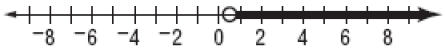
    A. $w \geq 6$
    B. $w \geq 8$
    C. $w \geq 12$
    D. $w \geq 15$

19. Which graph shows the solution set for the inequality $\frac{p}{4} > 2$?

    A.


    B.


    C.

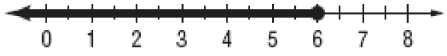

    D.


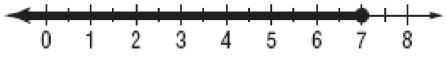
20. Which equation is equivalent to $x + 3 = 9$?

    A. $3x + 9 = 3$
    B. $3x + 3 = 27$
    C. $3x + 9 = 27$
    D. $3x + 9 = 81$

21. Kaitlin belongs to an online video game club that charges $2.50 for each game she downloads. Since she can spend no more than $15 per month, she writes and solves the inequality $2.50g \leq 15$ to find g, the number of games she can download per month. Which graph shows the solution set for the inequality $2.50g \leq 15$?

    A.


    B.


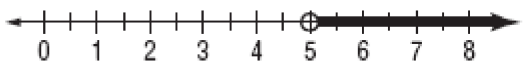
    C.


    D.


22. What is the solution set to the inequality $-4z - 2 \leq 14$?

A. $\{z \mid z \leq 4\}$
B. $\{z \mid z \geq 4\}$
C. $\{z \mid z \leq -4\}$
D. $\{z \mid z \geq -4\}$

23. The number line below shows the graph of the inequality $x > 5$.



Which of the following inequalities has $x > 5$ as its solution?

A. $-2x + 2 > 12$
B. $-3x + 7 < 8$
C. $-4x + 25 < 5$
D. $-6x - 5 < 25$

24. On March 24, 1989, the *Exxon Valdez* ran aground off the coast of Alaska, spilling approximately 1.1×10^7 gallons of oil along the Alaskan coast. Less than a decade earlier, one of the worst oil spills in history occurred off the coast of Mexico. At that time, about 1.4×10^8 gallons of oil leaked.

About how much more oil leaked during the spill off the coast of Mexico than during the *Exxon Valdez* spill?

A. 0.3×10^7 gallons
B. 0.3×10^8 gallons
C. 1.29×10^7 gallons
D. 1.29×10^8 gallons

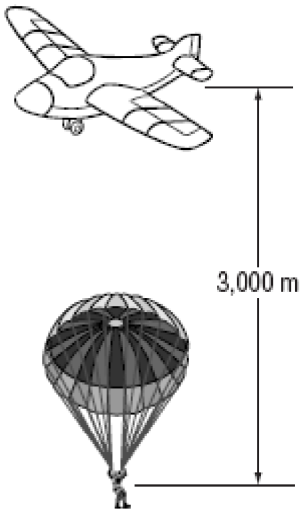
25. Which expression is equivalent to $2^3 \times 3^{-4} \times 4^2 \times 5^4 \times 7^{-1}$?

A. $6 \times (-12) \times 8 \times 20 \times (-7)$
B. $2^3 - 3^4 + 4^2 + 5^4 - (-7^1)$
C. $(2 \times 3 \times 4 \times 5 \times 7)^{3 - 4 + 2 + 4 - 1}$
D. $\dfrac{2^3 \times 4^2 \times 5^4}{3^4 \times 7}$

26. What is the value of ab^2 when $a = -2$ and $b = 5$?

A. -100
B. -50
C. 50
D. 100

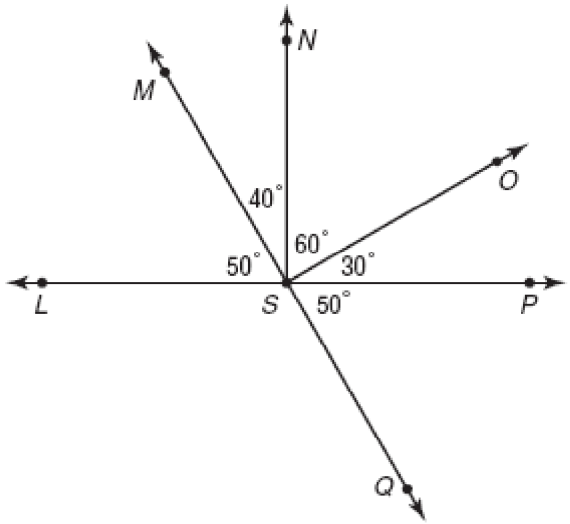
27. Rene, a skydiver, jumps from an airplane at an altitude of 4,000 meters. The equation $t = \sqrt{\frac{h}{9.8}}$, where h represents the number of meters that an object falls and t represents time in seconds, can be used to determine how long it takes an object to fall.



If Rene pulls her rip cord after falling 3,000 meters, about how much time did it take her to fall that distance?

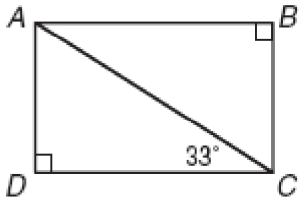
A. 17 seconds
B. 30 seconds
C. 170 seconds
D. 300 seconds

28. In the diagram below, which two angles are NOT supplementary?



A. $\angle OSP$ and $\angle PSQ$
B. $\angle MSO$ and $\angle OSQ$
C. $\angle LSN$ and $\angle NSP$
D. $\angle LSQ$ and $\angle PSQ$

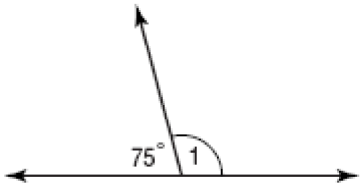
29. *ABCD* is a rectangle.



What is the measure of $\angle ACB$?

A. 180°
B. 90°
C. 57°
D. 33°

30. What is the measure of $\angle 1$ in the diagram below?



A. 15°
B. 45°
C. 75°
D. 105°

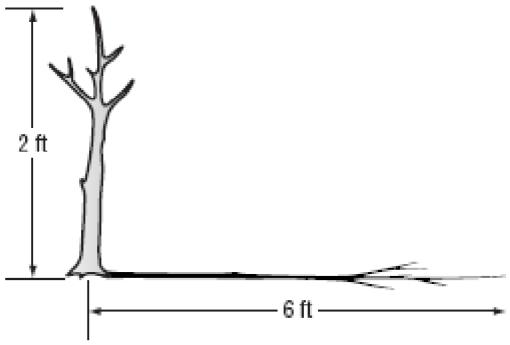
31. $\angle R$ and $\angle S$ are complementary. If the measure of $\angle S$ is 25°, what is the measure of $\angle R$?

A. 65°
B. 90°
C. 115°
D. 155°

32. Mariah is designing a garden in the shape of a right triangle. Which could be the lengths of the sides of the garden?

A. 6.5 feet, 7.5 feet, 8.5 feet
B. 7.5 feet, 10 feet, 15 feet
C. 7.5 feet, 12.5 feet, 19.5 feet
D. 12.5 feet, 30 feet, 32.5 feet

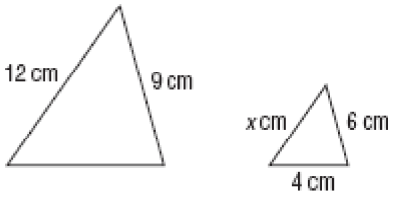
33. On a sunny day, a two-foot tall tree casts a shadow six feet long.



At the same time, a nearby tree casts a shadow 42 feet long. What is the height of the taller tree?

A. 12 feet
B. 14 feet
C. 16 feet
D. 18 feet

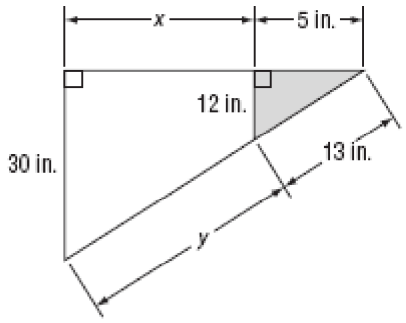
34. A patchwork quilt includes pieces that are similar triangles of various sizes. Two of the pieces are shown below.



What is the value of x?

A. 3
B. 6
C. 8
D. 9

35. Fred is making a pennant for a school pep rally. The pennant is a right triangle and will be divided into two colors as shown below.



If the smaller triangle is similar to the pennant, what are the values of x and y?

A. $x = 7.5, y = 19.5$
B. $x = 12.5, y = 32.5$
C. $x = 18, y = 18$
D. $x = 23, y = 31$

36. On a sunny day, a 4.5-foot tall boy casts a shadow 5 feet long. At the same time, a nearby flagpole casts a shadow 36 feet long. What is the height of the flagpole?

A. 31 feet
B. 32.4 feet
C. 35.5 feet
D. 36 feet

37. A group of students is asked how many pets each has. The results are as follows: 3 have no pets, 6 have 1 pet, 7 have 2 pets, 3 have 3 pets, and 1 has 4 pets. How does the mode change if the student with 4 pets is removed from the results?

A. increases by 1
B. decreases by 1
C. decreases by 4
D. does not change

38. The stem-and-leaf plot below shows the heights of boys in Justin's class.

HEIGHTS OF BOYS (in inches)

Stem	Leaves
5	5 6 8 9
6	0 0 1 2 2 2 3 4 5 5 7

Key: 6 | 0 = 60 inches

How tall is the shortest boy?

A. 50 inches
B. 55 inches
C. 59 inches
D. 60 inches

39. A train on the Jacksonville Skyway can travel at a maximum speed of 35 miles per hour. Which of the following expressions can be used to convert this speed to yards per minute?

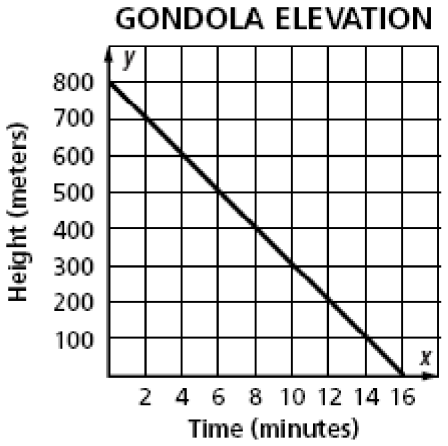
A. $\frac{35 \text{ mi}}{1 \text{ hr}} \cdot \frac{1 \text{ mi}}{1{,}760 \text{ yd}} \cdot \frac{1 \text{ hr}}{60 \text{ min}}$

B. $\frac{35 \text{ mi}}{1 \text{ hr}} \cdot \frac{1{,}760 \text{ yd}}{1 \text{ mi}} \cdot \frac{1 \text{ hr}}{60 \text{ min}}$

C. $\frac{35 \text{ mi}}{1 \text{ hr}} \cdot \frac{1 \text{ yd}}{1{,}760 \text{ mi}} \cdot \frac{1 \text{ hr}}{60 \text{ min}}$

D. $\frac{35 \text{ mi}}{1 \text{ hr}} \cdot \frac{1{,}760 \text{ yd}}{1 \text{ mi}} \cdot \frac{60 \text{ hr}}{1 \text{ min}}$

40. The graph below shows the height of a gondola that brings hikers down a mountain with respect to time.



Which statement best interprets the slope of the graph?

A. The height of the gondola changes at a rate of 100 meters per minute.
B. The height of the gondola changes at a rate of 50 meters per minute.
C. The height of the gondola changes at a rate of 16 meters per minute.
D. The height of the gondola changes at a rate of 2 meters per minute.

41. Dust mites are microscopic bugs that live in moist surroundings, including carpets or mattresses. The length of the body of a typical dust mite is 0.000420 meter. What is 0.000420 in scientific notation?

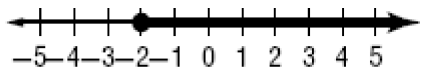
A. 4.2×10^{-3}

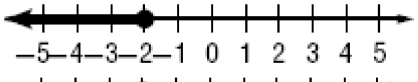
B. 4.2×10^{-4}

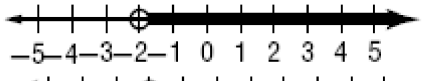
C. -4.2×10^{4}

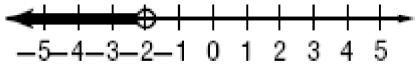
D. 420×10^{-4}

42. Which graph shows the solution set for the inequality $3x + 8 < 2$?

A.


B.


C.


D.


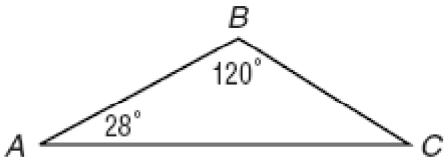
43. Which expression is between -33 and -36?

A. $-11\sqrt{8}$
B. $-3\sqrt{135}$
C. $-2\sqrt{17}$
D. $-3\sqrt{23}$

44. What is the solution for the inequality $-4x + 2 \leq 6$?

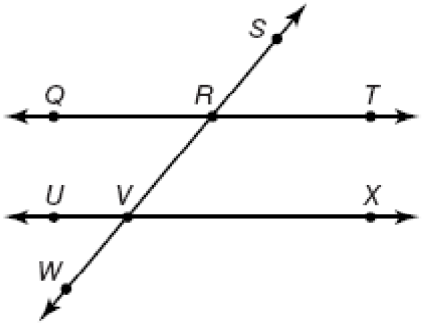
A. $x \leq -1$
B. $x \geq -1$
C. $x \leq -2$
D. $x \geq -2$

45. What is the measure of $\angle ACB$ in the triangle below?



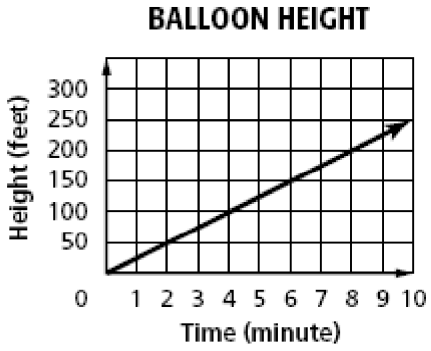
A. 32°
B. 42°
C. 92°
D. 212°

46. Which two angles are vertical angles?



A. $\angle WVU$ and $\angle RVX$
B. $\angle QRS$ and $\angle SRT$
C. $\angle WVX$ and $\angle SRT$
D. $\angle TRV$ and $\angle RVX$

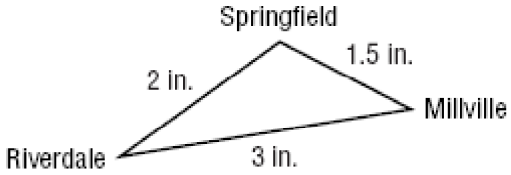
47. The graph below shows the height of a hot air balloon as it lifts off.



If the balloon continues to rise at the same rate, what will its height be at 16 minutes?

A. 300 feet
B. 400 feet
C. 800 feet
D. 1,600 feet

48. Delia measures the distance between three towns on a map, as shown below.



If the actual distance between Riverdale and Springfield is 10 miles, what is the actual distance between Riverdale and Millville?

A. 13 miles
B. 15 miles
C. 30 miles
D. 60 miles

49. Balloons at the Party Store cost $1.50 each. There is a one-time cost of $3 to have the balloons filled with helium. Which equation can be used to find c, the cost of buying and filling b balloons?

A. $c = 3b + 1.50$
B. $c = 1.50(b + 3)$
C. $c = 1.50b + 3$
D. $c = 3(b + 1.50)$

50. Aleta went to dinner. The bill was $36. She gave the waiter a 15% tip. What was the total amount Aleta spent on the food and the tip?

A. $36.15
B. $37.50
C. $38.40
D. $41.40

51. Find the situation which represents direct variation.

    A. The weight of an object on the moon in relation to the weight of an object on Earth.
    B. The cost of an apple in relation to how many apples are purchased.
    C. The time it takes 4 men to build a garage in relation to the time it takes 10 men to build a garage.
    D. The difference in age between Sybil and Tyler.

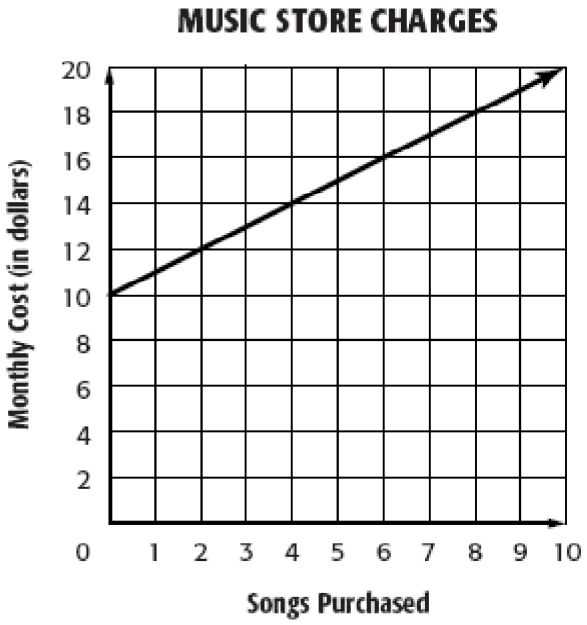
52. A swordfish can swim at a rate of 60 miles per hour. About how many meters per hour is this?

    A. 97 m B. 966 m C. 9660 m D. 96,600 m

53. Which is equivalent to $\frac{10}{15}$?

    A. $\frac{2}{5}$ B. $0.\overline{6}$ C. 0.6 D. 2.3

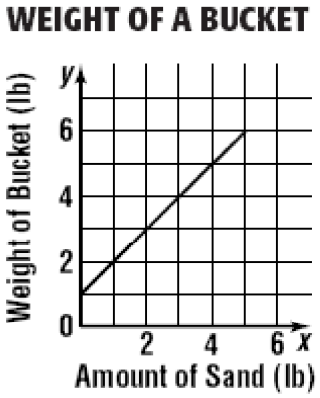
54. The graph below displays the amount a music download store customer pays per month.



What does the *y*-intercept indicate?

    A. The cost of a song is $10.
    B. The cost of a song is $2.
    C. The subscription fee is $10.
    D. The subscription fee is $2.

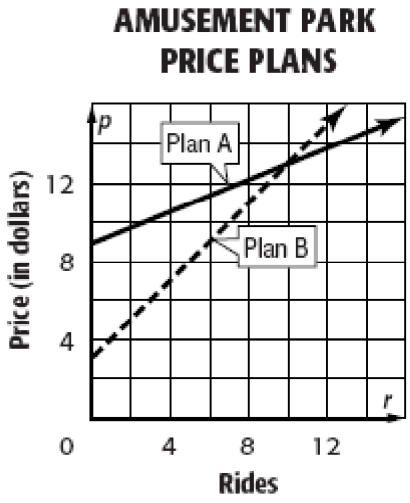
55. The graph below shows the weight of a bucket as it is filled with sand.



What is the weight of the empty bucket?

A. 0 pounds
B. 1 pound
C. 2 pounds
D. 6 pounds

56. Two pricing plans for an amusement park are listed.
Plan A: $9, plus 40 per ride
Plan B: $3, plus $1 per ride
The graph below shows the two plans.



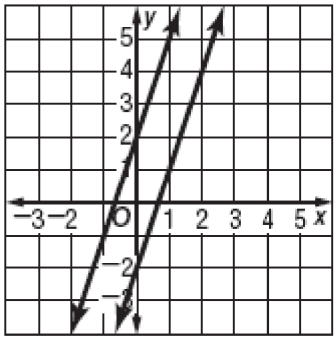
For which number of rides would Plan B be **more** expensive than Plan A?

A. 2 rides
B. 8 rides
C. 10 rides
D. 12 rides

57. The number of books sold was 4 times the number of books-on-tape sold. Books cost $5 each and books-on-tape cost $6 each. If $910 was collected, how many books-on-tape were sold?

A. 6
B. 25
C. 35
D. 140

58. The graph below shows the equations $y = 3x + 2$ and $y = x - 2 + 2x$.



What is the solution to this system of equations?

A. $\left(\frac{2}{3}, 0\right)$
B. (1, 5)
C. There are infinitely many solutions.
D. There are no solutions.

59. The table below shows the cost of taking a taxi.

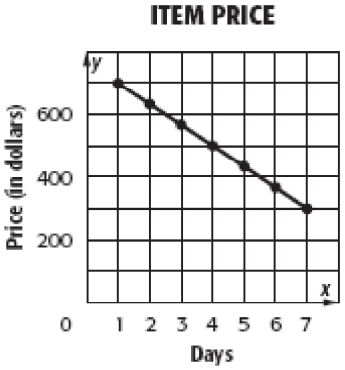
Cost of Taxi Travel	
Distance d (in miles)	Cost c (in dollars)
0	4.00
1	4.50
3	5.50
4	6.00
5	6.50

Which equation represents the relationship between distance and cost as shown in the table?

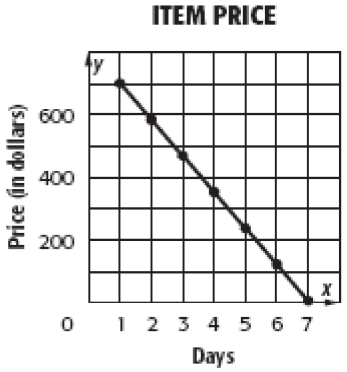
A. $c = 0.50d$
B. $c = 0.50d + 4$
C. $c = 4d$
D. $c = 4d + 0.50$

60. Each day of a sale, the price of an item is reduced by $\frac{1}{7}$ from the previous day's price. Which graph shows the price of an item that was first priced at $700 over a 7-day period?

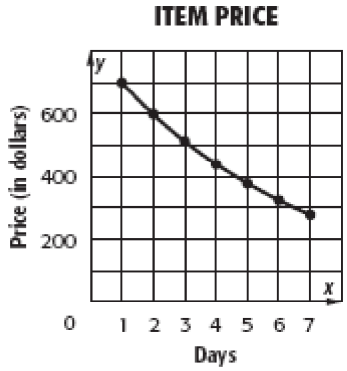
A.



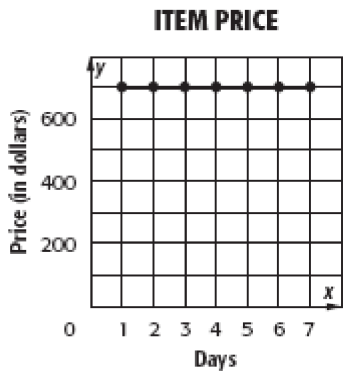
C.



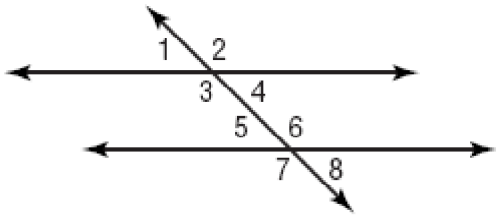
B.



D.



61. Which set of angles are supplementary in the graphic shown below?

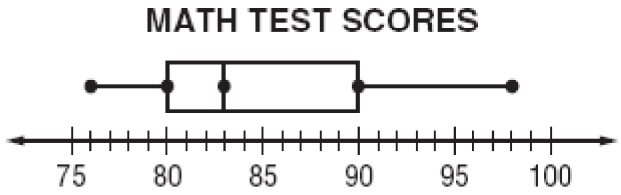


A. $\angle 1$ and $\angle 4$
B. $\angle 2$ and $\angle 3$
C. $\angle 4$ and $\angle 8$
D. $\angle 7$ and $\angle 8$

62. In triangle XYZ, the measure of $\angle XYZ$ is 39° and the measure of $\angle YXZ$ is 22°. What is the measure of $\angle YZX$?

A. 17°
B. 29°
C. 119°
D. 151°

63. Which set of math test scores matches the box-and-whisker plot shown below?



A. 89, 77, 80, 75, 91, 98, 81, 92, 82, 71, 83, 87, 80
B. 92, 80, 82, 99, 84, 77, 80, 87, 76, 89, 90, 81
C. 98, 77, 92, 83, 80, 84, 80, 81, 82, 76, 87, 89, 91
D. 82, 76, 92, 80, 98, 81, 84, 87, 91, 77, 80, 89

64. The table below lists the lowest recorded temperatures, and the year those temperatures were recorded, for several locations in Florida.

Lowest Recorded Temperatures		
Location	Year	Temp (°F)
Tallahassee	1899	-2
Miami	1917	27
Orlando	1985	19
Jacksonville	1985	7

What is the approximate average of these temperatures in degrees Celsius?

A. -10.7°C
B. 10.6°C
C. 12.8°C
D. 23.0°C

65. A typical hot air balloon can hold 30,000 cubic feet of air in its balloon. Approximately how many cubic yards of air can this balloon hold?

A. 1,111 cubic yards
B. 3,333 cubic yards
C. 90,000 cubic yards
D. 810,000 cubic yards

66. George is driving at a speed of 60 miles per hour. At this rate, how many feet per second is he traveling?

A. 1
B. 66
C. 88
D. 528

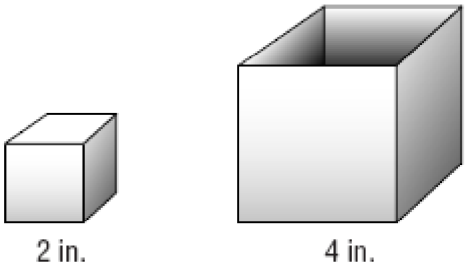
67. Red tide is a high concentration of algae that can be harmful to marine animals and humans. Along the gulf coast of Florida, red tide is typically caused by the organism *Karenia brevis*. These organisms can be as large as 4.5×10^{-5} meter. What is 4.5×10^{-5} written in standard form?

A. 4,500,000
B. 450,000
C. 0.000045
D. 0.0000045

68. Which expression has the **least** value?

A. $\frac{2^2 \cdot 3^2 \cdot 6^1}{3^0 \cdot 6^2}$
B. $\frac{2^2 \cdot 3^3 \cdot 5^1}{3^2 \cdot 4^1}$
C. $\frac{2^{-3} \cdot 3^3 \cdot 4^2}{2 \cdot 3^2}$
D. $\frac{2^{-3} \cdot 3^3 \cdot 5^1}{2^0 \cdot 4^{-2}}$

69. Celina wants to find the number of 2-inch cubes she can fit in a cubic box with 4-inch sides.



She writes $\frac{4^3}{2^3}$ to calculate her answer. Which choice is equivalent $\frac{4^3}{2^3}$?

A. 2
B. 4
C. 6
D. 8

70. Which expression is equivalent to $\frac{3 \cdot 3}{5 \cdot 5 \cdot 5 \cdot 5}$?

A. $2^3 \cdot 4^{-5}$
B. $3^2 \cdot 5^{-5}$
C. $3^{-2} \cdot 5^4$
D. $2^{-3} \cdot 4^5$

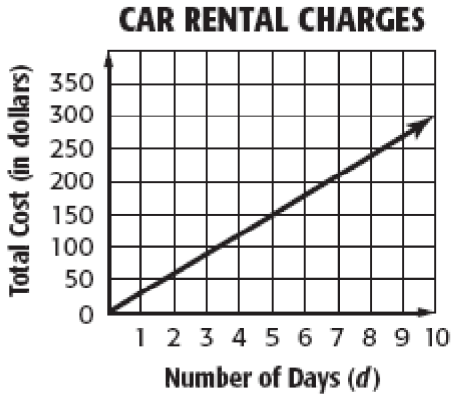
71. The table shows some items at a toy store and their prices. Sales tax is not included.

Toy Store Prices	
Item	**Price**
Action Figure	$6.25
Model Plane Kit	$13.50
Remote Control Car	$22.50

A 6% sales tax is charged on all toys. With sales tax included, which combination of items costs $50.35?

A. 3 action figures, 1 model plane kit
B. 2 remote control cars
C. 1 remote control car, 4 action figures
D. 2 action figures, 1 model plane kit, 1 remote control car

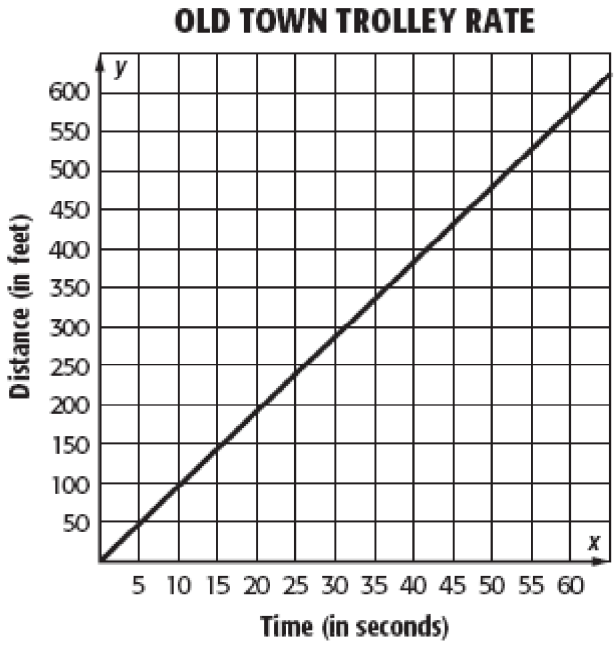
72. The graph shows the relationship between C, the cost to rent a car, and d, the number of days the car is rented.



Which equation represents the relationship shown in the graph?

A. $C = d + 25$
B. $C = 30d$
C. $C = 50d$
D. $C = 5d + 150$

73. The line segment on the graph shows the distance traveled by the St. Augustine Old Town trolley during one minute of its route from the Old Jail to the Fountain of Youth.



Which of the following best describes the slope of the line segment?

A. The trolley travels at a rate of 29.5 feet per second.
B. The trolley travels at a rate of 19.5 feet per second.
C. The trolley travels at a rate of 9.5 feet per second.
D. The trolley travels at a rate of 5.5 feet per second.

74. The table below shows approximate populations of 4 Florida cities.

City Populations	
City	Population
Boca Raton	8.63×10^4
Fort Myers	6.05×10^4
Gainesville	1.08×10^5
Sarasota	5.29×10^4

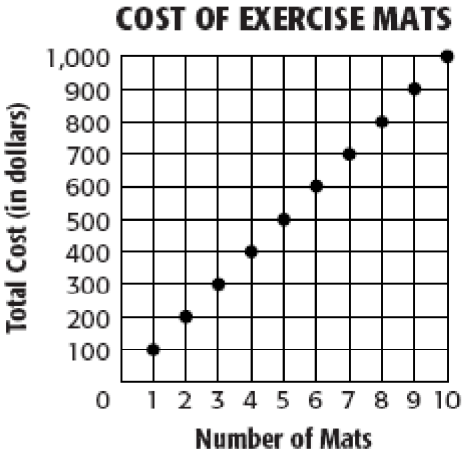
In standard notation, what is the difference between the population of the city with the greatest population and the population of the city with the least population?

A. 21,700
B. 55,100
C. 75,500
D. 755,000

75. Which problem situation CANNOT be represented by the graph of a linear function?

A. the commission earned on a sale at a commission rate of 5.5%
B. the salary of a part-time worker who earns $8.50 an hour for working *n* hours
C. the distance traveled by a car at an average speed of 35 miles per hour for *t* hours
D. the volume of a cube given the length of one edge

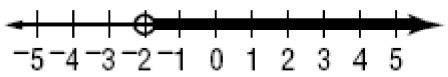
76. A gymnastics center is buying new exercise mats. The graph below shows the relationship between the number of mats bought and the total cost of the mats.



What will be the total cost for 24 new exercise mats?

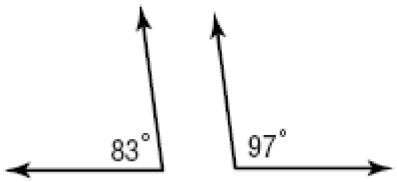
A. $1,200
B. $2,400
C. $12,000
D. $24,000

77. Which inequality has the solution set shown on the graph below?



A. $4x + 10 > 2$
B. $4x - 10 > 2$
C. $4x + 10 > -2$
D. $4x - 10 > -2$

78. Which of the following terms best describes the relationships between the angles?



A. complementary
B. corresponding
C. supplementary
D. vertical

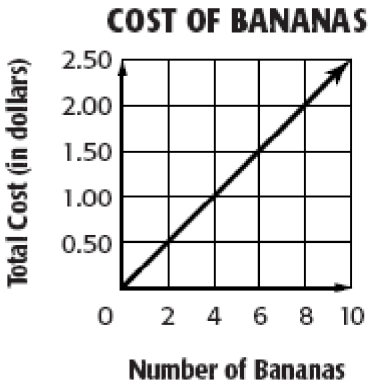
79. The total of Cate's last 5 gasoline bills can be found in the chart below.

Cate's Gasoline Bills	
Month	Total
October	$55
November	$63
December	$57
January	$54
February	$56

Which of the following statements would be true if Cate's gasoline bill had been $58 in November, instead of $63?

A. The mean would decrease by $5.
B. The median would decrease by $5.
C. The mean would not change.
D. The median would not change.

80. The graph below shows the total cost C to buy b bananas.



Which equation represents the relationship shown in the graph?

A. $C = 0.25b$
B. $C = 2.00b$
C. $C = 0.50b$
D. $C = 2.50b$