Name_____ Spring Break Packet! Period _____

Write answers here.

1._____	2._____	3._____	4._____	5._____
6._____	7._____	8._____	9._____	10._____

Directions: Select the numbers that best answer the question. You must select all correct numbers. Write your answer in the answer box above.
YOU MAY NOT USE A CALCULATOR.

1. Select all numbers that are greater than $\frac{2}{3}$.

60%	**$\frac{7}{10}$**	**0.75**
$\frac{5}{9}$	**69%**	**0.28**

Directions: Select the letter that best answers the question.
YOU MAY NOT USE A CALCULATOR.

2. $3\frac{1}{3} \bullet 1\frac{1}{2}$

A 5

B $3\frac{2}{3}$

C $3\frac{1}{6}$

D $2\frac{2}{9}$

3. Which expression is equivalent to $\frac{1}{2} \div \frac{2}{3}$?

A $\frac{2}{1} \bullet \frac{3}{2}$

B $\frac{1}{2} \bullet \frac{3}{2}$

C $\frac{2}{3} \div \frac{1}{2}$

D $\frac{2}{3} \div \frac{2}{1}$

4. -6 – 8 =

A 14

B 2

C -2

D -14

5. Simplify: $15 - 4 + 4 \bullet 2$

A 46 **C** 19

B 30 **D** 3

6. Simplify: $-18 \div 9 \bullet 2$

A -4 **C** 1

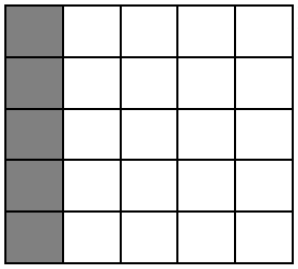
B -1 **D** 4

7. Which of the following numbers is equivalent to 60%?

A $\frac{6}{100}$ **C** 0.06

B $\frac{3}{5}$ **D** 60

8. Which number could the model represent?



A 10% **C** $\frac{1}{5}$

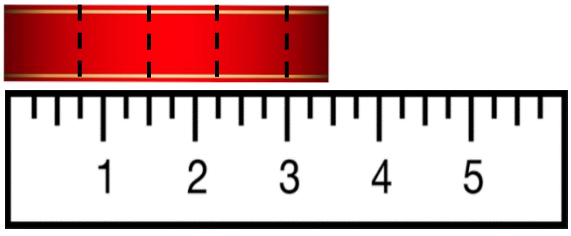
B 0.25 **D** 5

9. Which set of numbers is in ascending order?

A 50%, $\frac{1}{8}$, 0.25 **C** $\frac{1}{8}$, 0.25, 50%

B 50%, 0.25, $\frac{1}{8}$ **D** $\frac{1}{8}$, 50%, 0.25

10. The picture represents a piece of ribbon. Which expression could represent the picture?



A $3\frac{1}{2} \bullet \frac{3}{4}$ **C** $4\frac{1}{2} \bullet 3\frac{1}{2}$

B $3\frac{1}{2} \div \frac{3}{4}$ **D** $4\frac{1}{2} \div 3\frac{1}{2}$

Write answers here.

11._____	12._____	13._____	14._____	15._____
16._____	17._____	18._____	19._____	20._____

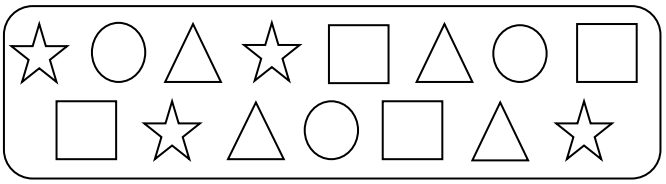
Directions: Write the two numbers you select in the blank at the top of the page.

11 Select three numbers that are less than -7.

-10	**-8**	**-5**
-15	**-2**	**-1**

Directions: Select the letter that best answers the question. Write the selected letter in the blank at the top of the first page.

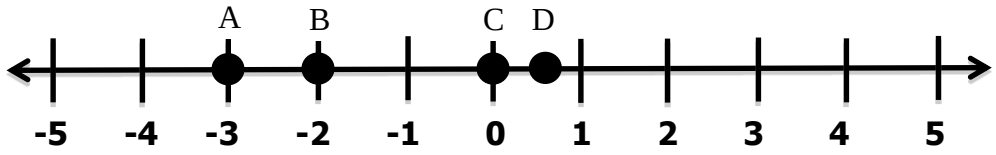
12 Use the diagram.



Which two shapes have a ratio of 8 to 6?

A	triangle to rectangle	**C**	rectangle to star
B	star to circle	**D**	circle to triangle

13 Which letter on the number line represents an integer that is greater than -2 and less than 1?

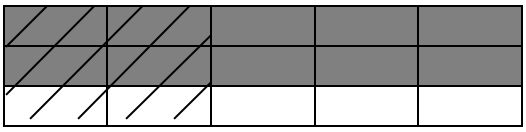


A	A	**C**	C
B	B	**D**	D

14 Which of the following equations is NOT true?

A	$\|-4\| = 4$	**C**	$\|-2\| = 2$
B	$\|4\| = -4$	**D**	$\|2\| = 2$

15 Which expression is modeled below?



A $\frac{4}{15} \bullet \frac{4}{15}$

B $\frac{2}{15} \bullet \frac{5}{15}$

C $\frac{2}{5} \bullet \frac{2}{3}$

D $\frac{2}{5} \bullet \frac{2}{5}$

16 Which ratio correctly represents 0.5%

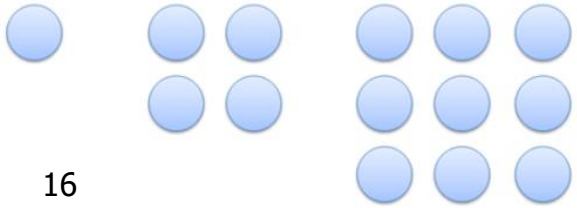
A $\frac{5}{1{,}000}$

B $\frac{5}{100}$

C $\frac{5}{10}$

D $\frac{5}{1}$

17 The dots represent a pattern. If the pattern continues, how many dots will the next set of dots contain?



A 12

B 14

C 16

D 18

18 At Travis' birthday party, $\frac{3}{4}$ of his birthday cake was eaten. The next day, Travis ate $\frac{1}{3}$ of the remaining cake. What fraction of the whole cake did Travis eat the next day?

A $\frac{1}{12}$

B $\frac{1}{7}$

C $\frac{1}{4}$

D $\frac{1}{3}$

19 Emily is baking cupcakes. Each batch of cupcakes requires $\frac{2}{3}$ cups of cocoa. If Emily has $3\frac{1}{3}$ cups of cocoa, how many batches of cupcakes will she be able to make?

A $2\frac{2}{9}$

B $2\frac{2}{3}$

C 4

D 5

20 Philip wants to buy a new video game system that cost $349.99 including tax. Philip has $125.50 saved. If Philip mows grass for $15.00 per yard, what is the least amount of yards he could cut to purchase the video game system?

A 225 **C** 23

B 210 **D** 15

---

21. see below	22._____	23._____	24._____	25._____
26._____	27._____	28._____	29._____	30. _____

Directions: Use the provided words to write the correct answer in the three blanks next to the solution.

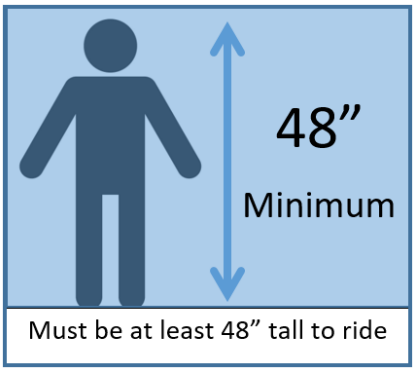
21 Which property justifies each step of the solution? Write the property next to the step.

Addition property of equality	Additive inverse	Multiplicative inverse
Multiplicative property of equality	Additive identity	Multiplicative identity

Given	**x – 8 = 15**	
Step 1	**x – 8 + 8 = 15 + 8**	_____
Step 2	**x – 0 = 15 + 8**	_____
Step 3	**x = 15 + 8**	_____
Step 4	**x = 23**	Substitution_____

Directions: Select the letter that best answers the question.

22 The sign for a roller coaster reads:



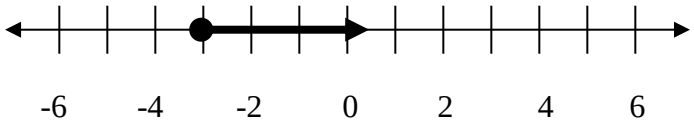
Which statement could be used to represent this situation?

A $h \leq 48$ **C** $h \geq 48$

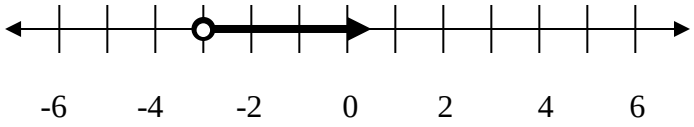
B $h < 48$ **D** $h > 48$

23 Which number line correctly models the inequality $w + 2 < -1$?

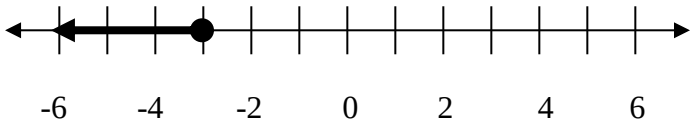
A



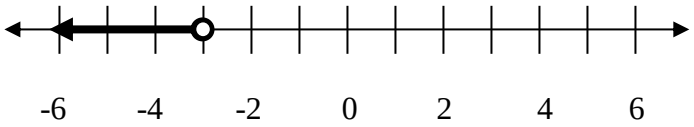
B



C



D



24 Which set of numbers are all solutions to the following inequality? $-15 > q - 5$

A {-10, -5, 0}
B {-11, -12, -14}
C {-9, -8, -7}
D (-12, -11, -10}

25 Which is the first step in order to solve the following equation?

$$p - 6.1 = 10$$

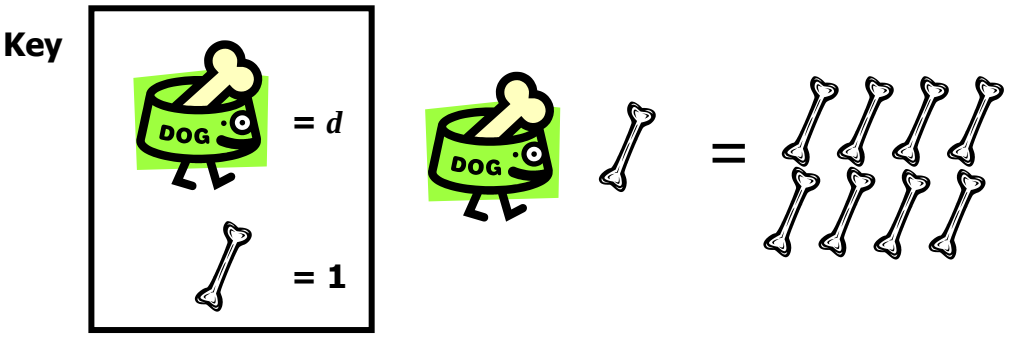
A Add 6.1 to the $p - 6.1$, and add 6.1 to the 10.

B Add 6.1 to the $p - 6.1$, and add 10 to the 10.

C Subtract 6.1 from the $p - 6.1$, and subtract 6.1 from the 10.

D Subtract 6.1 from the $p - 6.1$, and subtract 10 from the 10.

26 Which equation is modeled by the picture?



A $d - 1 = 8$
B $d \bullet 1 = 8$
C $d + 1 = 8$
D $\frac{d}{1} = 8$

27 **Solve:** $\frac{y}{2} = 10$

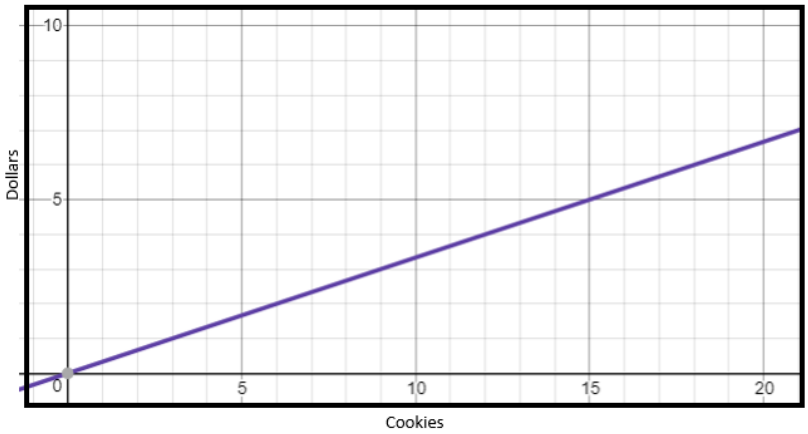
A 5

B 8

C 18

D 20

28 **Use the graph to the right.**



Which bakery could be represented by the graph?

A Bakery A sells 12 cookies for $4.00
B Bakery B sells 10 cookies for $5.00
C Bakery C sells 8 cookies for $3.00
D Bakery D sells 4 cookies for $1.50

29 **Marquel traveled 189 miles in 3 hours. If Marquel traveled at a constant rate, which table could represent Marquel's rate of speed?**

A

Hours	Miles
1	47
2	94
3	189

B

Hours	Miles
3	189
5	378
7	567

C

Hours	Miles
1	63
3	189
6	378

D

Hours	Miles
2	186
3	189
4	192

30. **Devin can read 28 pages in 56 minutes. What is his unit rate?**

A 0.25 page every minute

B 0.5 pages every minute

C 1.5 page every minute

D 2 pages every minute

31 _____	32._____	33._____	34._____	35._____
36._____	37._____	38._____	39._____	40. _____

Directions: Select the letter that best answers the question.

31. Which of the following numbers could be a solution for $w + 8 > 12$?

A -3 **C** $\frac{1}{4}$

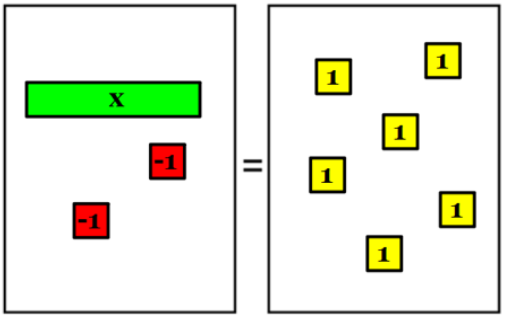
B 0 **D** 6.5

32. Solve for h. $-2h = -10$

A $h = -5$ **C** $h = -8$

B $h = 5$ **D** $h = 8$

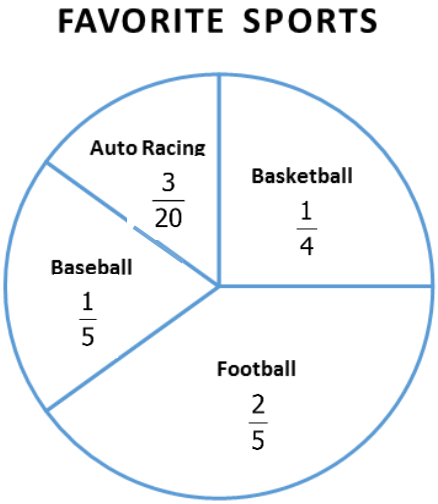
33. Which equation could the following model represent?



A $x - 2 = 6$ **C** $-2x = 6$

B $x + 2 = 6$ **D** $-2x = -6$

34. The circle graph represents the results from a survey conducted in Mrs. Farmers' 1st block class.



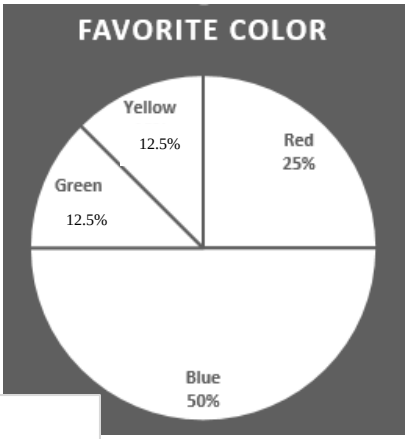
If there were 40 students surveyed? How many students chose basketball?

A 10 **C** 25

B 15 **D** 40

35. The circle graph shows the students favorite colors of Mr. Beans 1st block class.

Which statement would NOT be true about the graph?



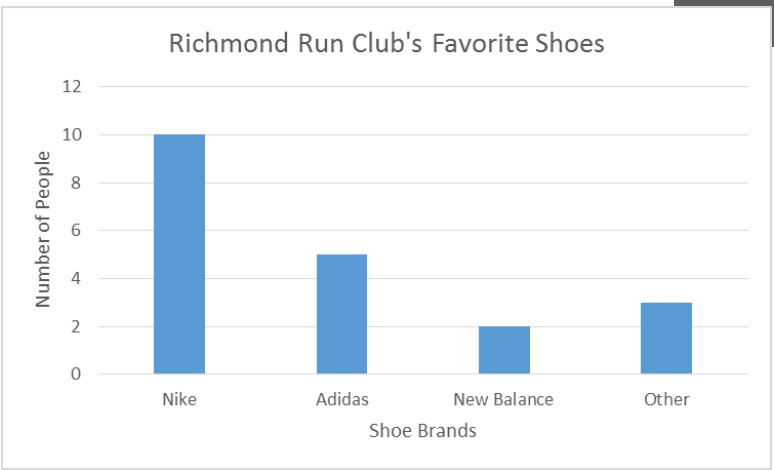
A Red has twice as many students as yellow.

B Together green and red make up half of the students.

C More students like blue than yellow.

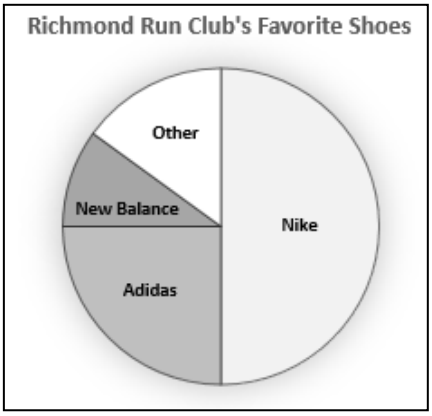
D Green represents $\frac{1}{8}$ of the students surveyed.

36. Use the bar graph.

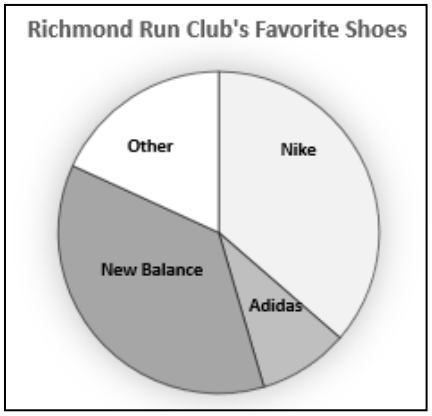


Which circle graph could represent the same data?

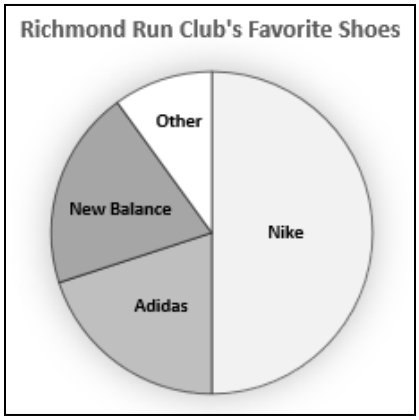
A



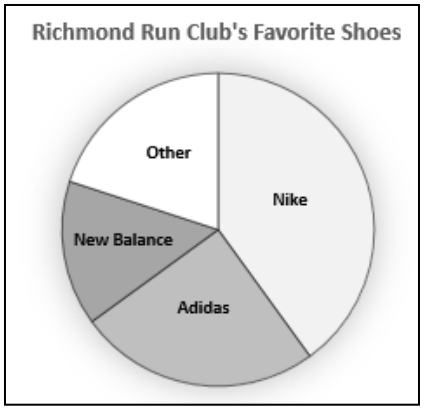
C



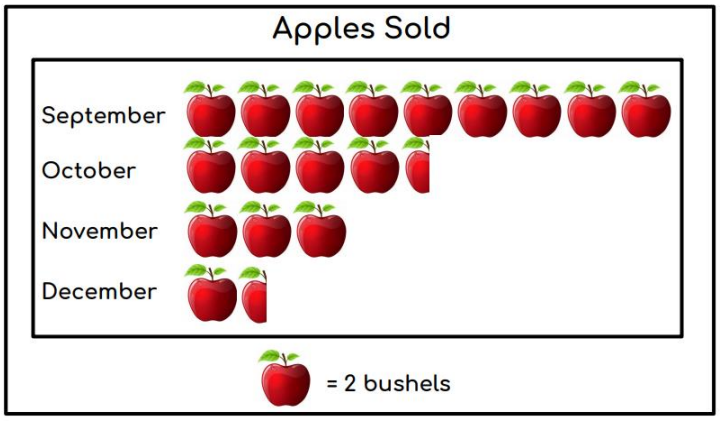
B

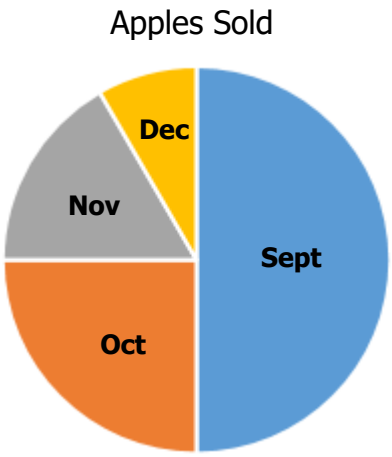


D



37. Use the pictograph and the circle graph to answer the question.





Which statement is false?

A In the pictograph, each apple represents two bushels of apples sold.

B In the circle graph, each section represents the percent of apples sold each month.

C In both graphs, you can tell the exact amount of apples sold each month.

D In both graphs, you can tell there are four different categories.

38. Donavan took a survey during his math class. He asked each student the following question. "On average, how many text messages do you receive in an hour?" The list below shows his results.

5, 8, 28, 5, 14, 18, 18, 8, 9, 18, 21, 199, 29, 25, 12

If the number 199 was deleted from the data set, which statement would be correct?

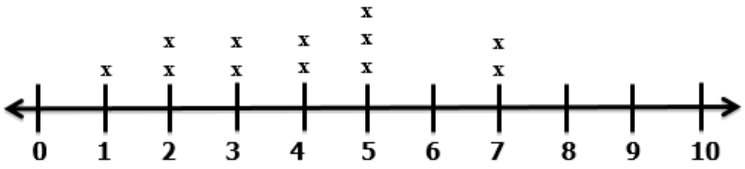
A The mode would change.

B The mean would decrease.

C The median would stay the same.

D The range would increase

39. What is the balance point of the data shown in the line plot?



A 5

B 4

C 6

D 7

40. What is the mean of this data set?

1.5, 1, 2.5, 1, 5, 1, 1.5, 2.5, 2, 3

A 1

B 1.75

C 2

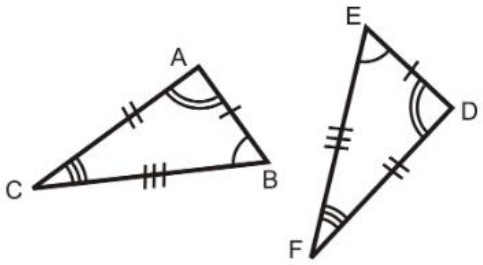
D 2.1

Write answers here.

41._____	42._____	43._____	44._____	45._____
46._____	47._____	48._____	49._____	50. _____

Directions: Circle the boxes that contain the correct statements. You must circle three correct statements.

41. Which of the following statements are true about the two congruent figures? Circle three true statements.



$\overline{AC} \cong \overline{EF}$	Angle A corresponds with angle D.	$\Delta ABC \cong \Delta DEF$
Triangle CAB is congruent to Triangle FED	$\angle CBA \cong \angle FDE$	Side CB corresponds to side FE.

Directions: Read the question and write the answer in the blank for 42 at the top of the page.

42. Benita's bedroom is in the shape of a rectangle and measures 12 feet by 11 feet. How many square feet of carpet will she need to buy to cover the entire room?

Directions: Select the letter that best answers the question. Write the letter you selected in the table at the top of the page.

43. Which ratio could be used to find the approximation for pi?

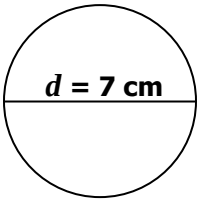
A $\frac{\text{circumference}}{\text{diameter}}$

B $\frac{\text{radius}}{\text{area}}$

C $\frac{\text{diameter}}{\text{radius}}$

D $\frac{\text{area}}{\text{circumference}}$

44. Which measurement is closest to the area of the circle?



A 177 cm^2

B 47 cm^2

C 38 cm^2

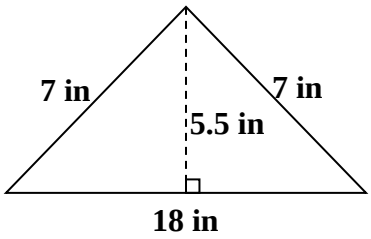
D 24 cm^2

45. Jose has a circular pizza with a diameter of 12 inches. Which of the following measurements is closest to the circumference.

A 18.84 in
B 37.68 in
C 113.04 in
D 452.16 in

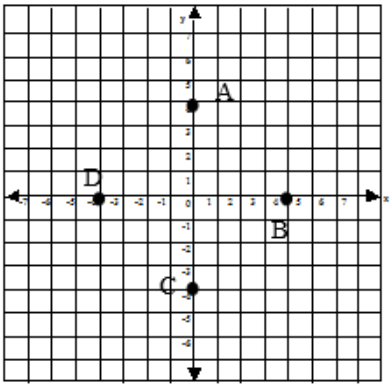
46. Many flags are stored in a wooden triangular shaped frame. How much wood is needed to go around the outside of the frame?

A 32 in.
B 37.5 in.
C 49.5 in.
D 882 in.



47. Which graphed point is best represented by (0, -4)?

A A
B B
C C
D D

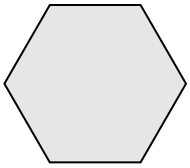


48. Which ordered pair lies on the same vertical line as (3, 4)?

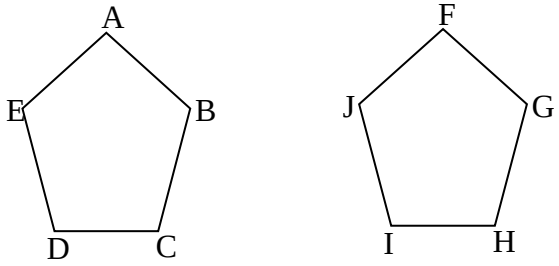
A (3, -2)
B (2, 3)
C (-3, 4)
D (0, 0)

49. What is the maximum number of lines of symmetry that can be drawn in the following figure?

A 1
B 3
C 4
D 6



50. Pentagon ABCDE is congruent to pentagon FGHIJ.



All of the following are true except _____.

A $\overline{AB} \cong \overline{FG}$
B $\overline{CB} \cong \overline{HG}$
C $\overline{ED} \cong \overline{JI}$
D $\overline{CD} \cong \overline{IJ}$