IRVINGTON PUBLIC SCHOOLS

MATHEMATICS

SPRING BREAK REVIEW PACKAGE

GRADE 6

APRIL 2016

NON-CALCULATOR SECTION

1. Solve.

$10.36 \div 2.8 = ?$

Enter your answer in the box.

2. The balance in Aarons' checkbook is –$11.55. The balance in John's checkbook is –$11.45.

Which of the following represents the relationship between these amounts?

Select **all** that apply.

☐ A. $|-11.45| > |-11.55|$

☐ B. $-11.55 < -11.45$

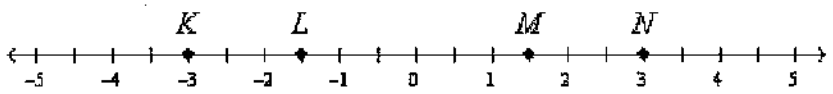
☐ C. $-11.55 > -11.45$

☐ D. $|-11.55| > |-11.45|$

☐ E. John owes less than Aaron

☐ F. Aaron owes less than John

Use the number line provided to answer Part A and Part B for question 3.



3. Part A

Which inequality is true?

- A. $L > M$
- B. $K < M$
- C. $M > N$
- D. $N < L$

Part B

Which point represents $|-1.5|$?

- Point K
- Point L
- Point M
- Point N

4. What is the greatest common factor of 18 and 45?

Enter your answer in the box.

5. Which expression is equivalent to $3 \times 3 \times 3 \times 3 \times 3$?

- A. 3^5
- B. 5^3
- C. 3×5
- D. $5 \times 5 \times 5$

Use the information provided to answer Part A and Part B for problem 6.

Shelly bought a case of soda for $4.79. A case contains 24 cans of soda.

6. Part A

Shelly will sell each can for $0.85 at a school event.

How much profit, in dollars, will Shelly earn if she sells all of the cans of soda?

Enter your answer in the box.

$

Part B

Shelly decided to raise her prices for a can of soda to $1.25.

If she sells 15 cans, how much profit will she make?

Enter your answer in the box.

$

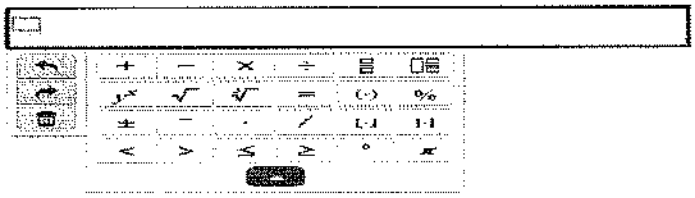
7. Which expression is equivalent to $45 + 27$

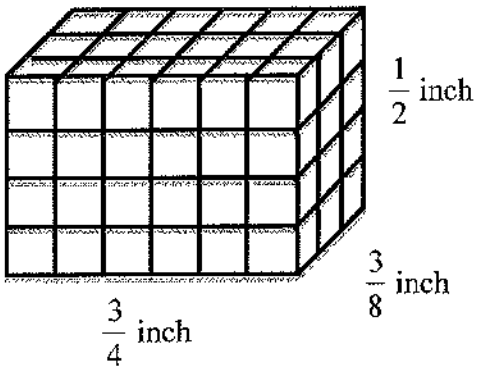
- A. $9(5+3)$
- B. $9(5+27)$
- C. $15(3+12)$
- D. $15(3+27)$

8. This right rectangular prism is built with small cubes.

What is the volume, in cubic inches, of the right rectangular prism?

Enter your answer in the box. Enter **only** your answer.

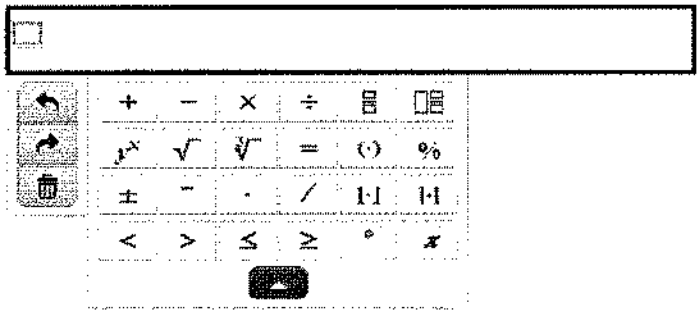




9. A gym charges \$30 per month plus \$5 extra to swim in the pool for an hour. A member wants to spend less than \$65 per month.

Write an inequality that can be used to find h, the number of hours the member can swim each month.

Enter your answer in the box. Enter **only** the inequality.



10. Is each of the following expressions equivalent to $6(t+5)$?

Select **all that** apply.

☐ A. $6t + 6$

☐ B. $2t + 4t + 30$

☐ C. $\frac{30}{5}t + \frac{150}{3}$

☐ D. $30t + 6$

☐ E. $2(3t + 15)$

11. Sue uses 12 lemons to make 8 cups of lemonade.

What is the ratio of lemons to cups of lemonade?

- o A. 4 : 1
- o B. 2 : 3
- o C. 1 : 4
- o D. 3 : 2

12. A fence post has a width of $\frac{11}{24}$ foot. Jaylen buys some fence posts. The posts he buys have a combined width of $3\frac{2}{3}$ feet.

How many posts did Jaylen buy?

Enter your answer in the box.

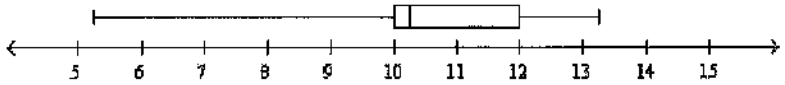
[ ] posts

13. In a day, a veterinarian weighs ten cats. The mass of each cat, in pounds, is given below

6.5, 11, 5.25, 11, 7.5, 10, 10.5, 10, 12, 13.25

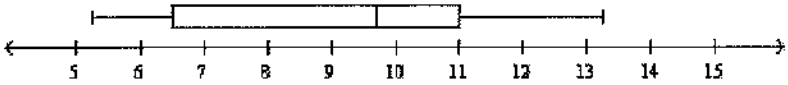
Which box plot correctly represents the masses of the cats, in pounds?

A.

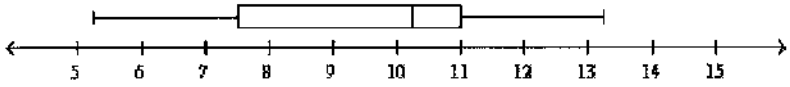


B.

C.



D.



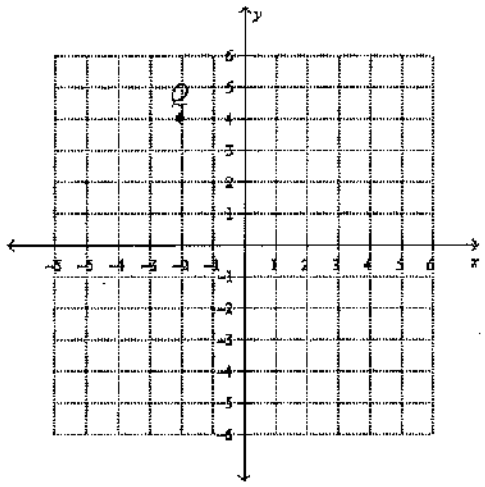
14. Tonya records the temperature, in degrees Fahrenheit, in Fairbanks, Alaska over 5 days. The temperatures are given in the table.

Monday	$-8^{\circ F}$
Tuesday	$-2^{\circ F}$
Wednesday	$3^{\circ F}$
Thursday	$-2^{\circ F}$
Friday	$4^{\circ F}$

Which statement is true?

- o A. The temperature was above zero degrees Fahrenheit on Monday and Tuesday.
- o B. The temperature was below zero degrees Fahrenheit on Monday and Thursday.
- o C. The temperature was above zero degrees Fahrenheit on Tuesday and Thursday.
- o D. The temperature was below zero degrees Fahrenheit on Wednesday and Friday.

15. Allen draws point Q on a coordinate grid, as shown.



Point R is point Q reflected over the y-axis.

What is the value of the y-coordinate of point R?

- A. 4
- B. 2
- C. –2
- D. –4

16. Oceanographers are sending a rover to the bottom of the ocean. Their plan is to study a rectangular area of the ocean floor. They make a map on a coordinate grid. On the grid, 1 unit represents 1 mile.

The vertices of the rectangular area of the ocean floor are (4.5, 1), (4.5, 8), (1, 8), and (1, 1).

What is the area of the ocean floor to be explored, in square miles?

Enter your answer in the box. Enter only your answer.

_____ square miles

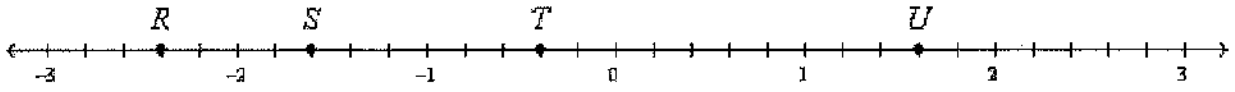
17. Which expression is equivalent to $8y$?

- A. $4y \times 2y$
- B. $4y + 2y$
- C. $5y \times 3y$
- D. $5y + 3y$

18. What is $4.6 + 1.95$?

Enter your answer in the box.

19.

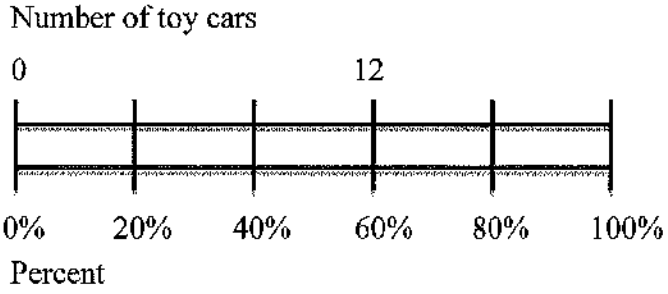


Which point represents $-1\frac{3}{5}$?

- A. Point R
- B. Point S
- C. Point T
- D. Point U

CALCULATOR SECTION

20. Jack has 12 red toy cars. The red cars represent 60% of Jack's toy car collection, as shown in the diagram.



What is the total number of cars in Jack's collection?

Enter your answer in the box.

[ ] cars

Use the following information to answer Part A and Part B for problem 21.

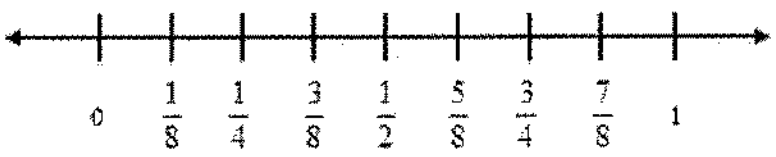
The larvae of a certain type of insect have a mean length of 0.65 inch. The students in a science class measured 10 larvae of this type. The lengths are given in the table.

Lengths of Larvae (in inches)				
$\frac{7}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
$\frac{3}{8}$	$\frac{5}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	$\frac{7}{8}$

21. Part A

Create a dot plot that shows the lengths of the larvae the students measured.

Lengths of Larvae



Length (inches)

Part B

What is the mean length of the larvae measured by the students, and is it greater than, less than or equal to the mean length of larvae of this type?

Circle one item in each column to complete the sentence.

The mean length is [Choose] $\frac{1}{2}$ $\frac{3}{4}$ $\frac{3}{8}$ $\frac{7}{10}$ $\frac{7}{8}$, and it is [Choose] greater than / less than / equal to the mean length of larvae of this type.