

You must show work or give an explanation for EVERY problem. NO WORK = NO CREDIT

- Simplify:  $^{-2}\left(x + 0.8\right) + \frac{1}{50}$ . NO CALCULATOR. You must show your calculations to receive credit.
- Simplify:  $^{-3}(4 - 2g) - 6$ .
- Natasha wants to order some party favors for her birthday party. She orders them from an online store, where they cost \$11 each and there is a shipping charge of \$6 for the entire order. If Natasha can spend no more than \$50, which inequality represents how many party favors,  $x$ , she can buy?
 

A.  $x \geq 4$                       B.  $x \leq 4$                       C.  $x \leq 6$                       D.  $x \geq 6$

- Simplify:  $^{-1.42}(3x - 5)$ . NO CALCULATOR. You must show your calculations to receive credit.

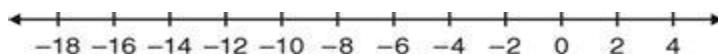
- A square has a side length of  $\frac{4}{19}x - 9$  units. What is its perimeter in terms of  $x$ ?

- Tara used the expression, where  $e$  represents her earnings, to calculate the monthly balance in the savings account for each of her 3 children.

$$\frac{0.3(e + 60) + 1,500}{3}$$

Which expression is equivalent to Tara's expression?

- A.  $0.1e + 500$                       B.  $0.1e + 506$                       C.  $0.1(e + 20) + 500$                       D.  $0.1e + 20 + 500$
- Jaizelyn is sewing pillow and quilt sets for a customer. Each set has 2 pillows and 1 quilt. She uses 0.75 yard of material for each pillow and 12 yards of material for each quilt. How many yards of material does she need for 3 sets of pillows and quilts? NO CALCULATOR. You must show your calculations to receive credit.
  - On the number line below, what is the coordinate of the point that is  $\frac{1}{4}$  the distance from  $-2$  to  $-18$ ?

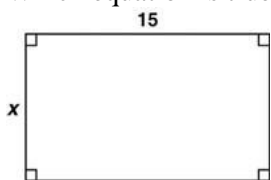


- A.  $-14$                       B.  $-12$                       C.  $-6$                       D.  $-4$
- Three-fifths of Tanya's family have red hair. What percent is equivalent to three-fifths?
  - Len has 24 marbles. Mahela has twice as many marbles as Len. How many marbles do Len and Mahela have together? You must write and solve an equation to receive credit.
  - David earned \$9.00 an hour at his job. He received a 6% pay increase. If he works 40 hours, how much money will David earn after his pay increase?
  - Juan and Kathy are making cookies for the school bake sale. Each batch of cookies requires  $1\frac{1}{4}$  cups of flour. They have  $7\frac{1}{2}$  cups of flour. How many batches of cookies can they make? NO CALCULATOR. You must show your calculations to receive credit.

13. Cindy and Zoey work at a store. Both girls earn \$6.25 per hour. During a normal week Cindy works 15 hours and Zoey works 20 hours. The expression  $6.25(15) + 6.25(20)$  can be used to calculate the total amount of money that the girls earned in one week. Which expression shows another way to calculate the amount of money the girls earn in one week?
- A.  $6.25(15)(20)$     B.  $6.25(15 + 20)$     C.  $6.25 + 15 + 20$     D.  $6.25 + (15 \times 20)$

14. A neighborhood group has \$28,000 to spend on improvements to a park. They spend \$7,600 on playground equipment and \$115 on each tree. Which inequality represents the maximum number of trees,  $t$ , that the group can buy?
- A.  $115t + 7,600 \leq 28,000$     C.  $115t - 7,600 \leq 28,000$   
 B.  $115t + 7,600 \geq 28,000$     D.  $115t - 7,600 \geq 28,000$

15. Which equation is true for this rectangle with a perimeter of 50 units?



- A.  $15x = 50$     B.  $30x = 50$     C.  $x + 15 = 50$     D.  $2x + 30 = 50$
16. Terry had his car repaired at Ace Auto. He was charged \$50 per hour for labor plus \$150 for parts. His total bill for the repair before tax was \$375. How many hours of labor was Terry charged for?
17. What is the value of  $s$  if  $8.25s - 2.375 = 10$ ? NO CALCULATOR. You must show your calculations to receive credit.
18. A farmer needs 162 feet of fencing to enclose a rectangular garden bed. The length of the bed is 25 feet. Write and solve an equation to find the width of the bed.
19. A young Komodo Dragon is 92 inches long. It could grow to a length of 120 inches in adulthood. The inequality below can be used to find  $x$ , the number of inches the Komodo Dragon could grow before it reaches its full length.  
 $92 + x \leq 120$   
 Which value of  $x$  shows a number of inches the Komodo Dragon could grow?
- A. 38 inches    B. 32 inches    C. 29 inches    D. 27 inches

20. Which number line represents the solution of  $m + 3 < 10$ ?

