

1. What is the simplified form of  $24r - 3(2r - 5t) - 4t$ ?

2. Simplify:  $\frac{1}{4}(14x - 10) - 3\left(2\frac{1}{2}x - 1\frac{1}{2}\right)$

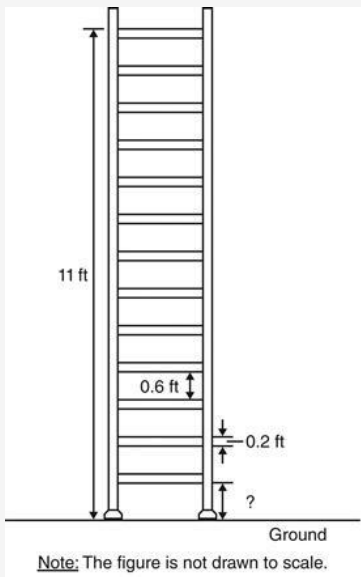
3. Simplify:  $-0.25(x - 6) - (0.5x + 2)$

4. A rain gauge collected  $1\frac{3}{8}$  inches of rainwater. Before the rainwater could be measured,  $\frac{1}{2}$  inch of it evaporated. How much rainwater is left in the rain gauge?

5. What is the value of the expression  $\frac{1}{4}\left(6 \times \frac{2}{3}\right) + \left(\frac{1}{2}\right)^3 = 1\frac{3}{4}$ ?

6. The owner of a shrimp boat receives  $\frac{1}{2}$  of the total money earned for a fishing trip, while the captain receives  $\frac{3}{10}$  and the deckhand receives  $\frac{1}{5}$ . On one trip, the owner received \$3,500 for his share of the catch. How much was the captain's share for that trip?

7. A vertical ladder with 13 rungs is attached to the side of a building. Each pair of rungs is spaced exactly 0.6 foot apart, and each rung has a diameter of 0.2 foot. The top of the highest rung is 11 feet above the ground.



How many inches off the ground is the bottom of the lowest rung of the ladder?

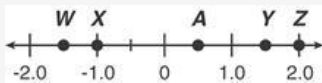
8. Solve the following equation for  $y$ .  
 $2y + 2 = 36$

9. Erica has \$14 and plans to save \$5 each week until she has the \$64 she needs for a new jacket. Write and solve an equation to find the total number of weeks Erica needs to save to have enough money for the jacket.

10. When the perimeter of a rectangle is 36 units and the width is 4 units less than the length, the equation  $4l - 8 = 36$  can be used to find  $l$ , the length of the rectangle in units. What is the value of  $l$ ?

11. Jameel is 10 inches taller than his sister. His sister is 47 inches tall. Write and solve an equation to find Jameel's height.

12. Mariska had 89 maps to give visitors at a state park on Saturday. At the end of the day, she had 12 maps left. Write and solve an equation to find the number of maps she gave to the visitors.
13. What is the value of  $x$  if  $2 + 4x = 10$ ?
14. What is the value of  $s$  if  $8.25s - 2.375 = 10$ ?
15. Sally plans to run 12 miles. She ran  $5\frac{1}{8}$  miles and then stopped for a water break. How many miles does Sally have left to run?
16. What is  $\left|-\frac{2}{3}\right| + \frac{5}{6} + \left(-\frac{1}{4}\right)$  in simplest form?
17. Which point on this number line represents subtracting 1.5 from Point A?



18. William went to the supermarket with \$15.00 in his pocket.

Supermarket  
Choices

Item	Price (\$)
Bread	\$1.25
Soap	\$2.18
Steaks	\$7.25
Shampoo	\$5.62
Cheese	\$4.27

Which combination of items is not possible for William to purchase with \$15.00?

- A. steaks, bread, soap    B. steaks, cheese, soap
- C. soap, cheese, shampoo    D. steaks, shampoo, cheese
19. The price of sausage at Rose Grocers is \$2.20 per pound. Tianna bought 13.8 pounds of the sausage. How much did she pay?
20. One day last winter, the temperature at 7:00 a.m. was 4°F. The temperature was 8 degrees higher at its hottest that day than it was at 7 a.m. By 9:00 p.m., the temperature had dropped 16 degrees from the hottest temperature. What was the temperature at 9:00 p.m.?