

Chapter 8 Quiz

Solve each equation. Check your solution. Show your work here or on the back of the quiz.

1. $\frac{4}{5}s + 8 = 12$

1. $s = 5$

2. $8 = -\frac{2}{3}h$

2. $h = -12$

3. $22 - 12k = -14$

3. $k = 3$

4. $59 = 7j + 3$

4. $j = 8$

5. $9(p - 2) = 45$

5. $p = 7$

6. $-3(4 + m) = -36$

6. $m = 8$

Solve each problem by writing and solving an equation.

7. The perimeter of the front face of a prism is 88 feet. The side lengths of the front face are $2x$ feet, $(4x + 8)$ feet, $2x$ feet, and $(4x + 8)$ feet. What is the value of x ?

$12x + 16 = 88$
 $\frac{12x}{12} \frac{-16}{12} = \frac{72}{12}$

7. $12x + 16 = 88; x = 6$

8. The difference between the record high and low temperatures in Daytona Beach, Florida, is 87°F . The record high temperature is 102°F . What is the record low temperature?

$102 - t = 87; 15^\circ\text{F}$
 $45 + 5m = 250$
 $\frac{5m}{5} = \frac{205}{5}$

9. $45 + 5m = 250; 41 \text{ mo.}$

10. Nannette installed a security system in her office for \$150. The monthly monitoring fee is \$30. So far, Nannette has spent \$420 for her security system. For how many months has she had the service?

10. $150 + 30m = 420; 9 \text{ mo.}$

$$\begin{aligned} & \text{↖ ↗} \\ & -3(4+m) = -36 \\ & -3(4) + (-3)(m) = -36 \\ & -12 + (-3m) = -36 \\ & +12 \qquad \qquad +12 \\ & \underline{-3m} = \underline{-24} \\ & \underline{-3} \qquad \underline{-3} \\ & m = 8 \end{aligned}$$

$$\begin{aligned} & \text{↖ ↗} \\ & \underline{-3(4+m)} = \underline{-36} \\ & \underline{-3} \qquad \underline{-3} \\ & 4+m = 12 \\ & -4 \qquad \underline{-4} \\ & m = 8 \end{aligned}$$