

Name _____

Equations Practice

Solve the following equations. Show work.

1. $15x + 30 = 90$

2. $12 - \frac{x}{8} = 31$

3. $-\frac{3}{5}(c + 20) = 54$

4. $9x - 13 = 106 - 8x$

5. $2b + 4.3 = 9b + 9.8 - 8b$

6. $10m - 4(m + 2) = -(m + 36)$

7. $4 + x + 3x = 3(x + 5)$

Translate each sentence into an equation. Solve the equation.

8. Five more than number divided by four is thirty-four.

9. Fifteen less than three times a number is thirty-three.

Write an equation that matches each situation.

10. Brendan earns \$8.25 per hour. He also earned \$90 for extra work he did.

a. Write an equation to represent Brendan's total pay, p , after h hours.

b. $(24, 288)$ is a solution to the equation. What does this solution mean?

c. If his total pay was \$387, how many hours did he work?

Equations Practice Answers

Solve the following equations. Show work.

1. $15x + 30 = 90$

$$x = 4$$

2. $12 - \frac{x}{8} = 31$

$$x = -152$$

3. $-\frac{3}{5}(c + 20) = 54$

$$c = -110$$

4. $9x - 13 = 106 - 8x$

$$x = 7$$

5. $2b + 4.3 = 9b + 9.8 - 8b$

$$b = 5.5$$

6. $10m - 4(m + 2) = -(m + 36)$

$$m = -4$$

7. $4 + x + 3x = 3(x + 5)$

$$x = 11$$

Translate each sentence into an equation. Solve the equation.

8. Five more than number divided by four is thirty-four.

$$\frac{n}{4} + 5 = 34$$

$$n = 116$$

9. Fifteen less than three times a number is thirty-three.

$$3n - 15 = 33$$

$$n = 16$$

Write an equation that matches each situation.

10. Brendan earns \$8.25 per hour. He also earned \$90 for extra work he did.

- a. Write an equation to represent Brendan's total pay, p , after h hours.

$$p = 8.25h + 90$$

- b. $(24, 288)$ is a solution to the equation. What does this solution mean?

Brendan worked 24 hours for a total of \$288.

- c. If his total pay was \$387, how many hours did he work?

36 hours