

Single Variable Equations -2

1. $p + 2 = 9 - p$. What is p?

$$p + 2 - 2 = 9 - 2 - p$$

$$p = 7 - p$$

$$p + p = 7 - p + p$$

$$2p = 7$$

$$p = 3.5$$

2. $3p - 3 = 9 + p$. What is p?

$$3p - 3 + 3 = 9 + 3 + p$$

$$3p = 12 + p$$

$$3p - p = 12 + p - p$$

$$2p = 12$$

$$p = 6$$

3. $2(q + 6) = 16$. What is q?

$$2q + 12 = 16$$

$$2q + 12 - 12 = 16 - 12$$

$$2q = 4$$

$$q = 2$$

4. $5(2q + 3) = 17$. What is q?

$$10q + 15 = 17$$

$$10q + 15 - 15 = 17 - 15$$

$$10q = 2$$

$$q = 0.2$$

5. $p \times 3 = 27 / p$. What is p?

$$p \times 3 / 3 = 27 / (p \times 3)$$

$$p = 9 / p$$

$$p \times p = (9 / p) \times p$$

$$p^2 = 9$$

$$p = 3$$

6. $8 / p = 2 \times p$. What is p?

$$(8 / p) \times p = 2 \times p \times p$$

$$8 = 2p^2$$

$$8 / 2 = 2p^2 / 2$$

$$4 = p^2$$

$$2 = p$$

$$p = 2$$

7. $3(2 \times q) = 9$. What is q?

$$6q = 9$$

$$6q / 6 = 9 / 6$$

$$q = 1.5$$

8. $4(8 / q) = 16$. What is q?

$$32 / q = 16$$

$$(32 / q) \times q = 16 \times q$$

$$32 = 16q$$

$$32 / 16 = 16q / 16$$

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$$2 = q$$

$$q = 2$$

How did you do? If you didn't do well, watch the following videos and try again!

- [What is an Equation?](#)
- [Equation Practice Problems](#)

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