

5.1

Multiplication Property of Equality: Problem Type 1

• Example 1

Solve

$$6x = 18$$

Multiplying by $\frac{1}{6}$ on both sides of the equation, we get

$$\frac{1}{6} \cdot 6x = \frac{1}{6} \cdot 18$$

or, equivalently,

$$x = 3.$$

The solution is 3. To check, replace x with 3 in the equation $6x = 18$.

This gives $6 \cdot 3 = 18$, which is true.

● ● ● CHECK YOURSELF 1

Solve and check.

$$8x = 32$$

● ● ● CHECK YOURSELF ANSWER

1. 4.

5.1 Exercises

Name _____

Section _____

Date _____

A N S W E R S

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Solve for x and check your result.

- | | |
|-----------------|------------------|
| 1. $5x = 20$ | 2. $6x = 30$ |
| 3. $9x = 54$ | 4. $6x = -42$ |
| 5. $63 = 9x$ | 6. $66 = 6x$ |
| 7. $4x = -16$ | 8. $-3x = 27$ |
| 9. $-9x = 72$ | 10. $10x = -100$ |
| 11. $6x = -54$ | 12. $-7x = 49$ |
| 13. $-4x = -12$ | 14. $52 = -4x$ |
| 15. $-42 = 7x$ | 16. $-7x = -35$ |
| 17. $-6x = -54$ | 18. $-4x = -24$ |
| 19. $5x = 35$ | 20. $7x = -28$ |
| 21. $-6x = 24$ | 22. $-9x = -63$ |