NAME _____ DATE _____

Module 3 Solving Linear Equations of One Variable
Lesson 1 Identifying Properties of Equality

additional practice

Identify the algebraic property.

1. If $3 + 2 = 5$, then $2 + (3 + 2) = 2 + 5$.

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2. If $6 \cdot 1 = 6$, then $(6 \cdot 1) - 1 = 6 - 1$.

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3. Multiplying both sides of an equation by the same nonzero number produces an equivalent equation.

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4. If $a = b$ and $b = c$, then $a = c$.

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5. $x + y + z = x + y + z$

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6. If $A + B + C = 180$, then $180 = A + B + C$.

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7. If $5 \cdot 7 = 35$, then $7 = 35 \div 5$.

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8. If $21 - 21 = 0$, then $(21 - 21) + 6 = 0 + 6$.

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9. If $27 = 9R$ and $27 = 20 + 7$, then $9R = 20 + 7$.

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10. If $a + b + c = 16$, then $b + c = -a + 16$.

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Write an example for the given algebraic property.

11. Multiplication Property of Zero _____

12. Division Property of Equality _____

13. Symmetric Property of Equality _____

14. Reflexive Property of Equality _____

15. Transitive Property of Equality _____

Supply the property of equality used in solving the following equations.

16. $-12y = 36$

$\frac{-12y}{-12} = \frac{36}{-12}$

$y = -3$

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17. $\frac{1}{2}x = 7$

$2 \cdot \frac{1}{2}x = 2 \cdot 7$

$x = 14$

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18. $x + 8 = 19$

$x + 8 - 8 = 19 - 8$

$x = 11$

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