

Properties of Equality Practice Worksheet

Name _____ Class Period _____

Identify the property of equality that justifies the missing step(s) to solve the given equation.

Equation	Steps
$3x + (x - 8) = 12$	Given
$4x - 8 = 12$	Associative property of Addition
$4x = 20$	(1) Addition property of Equality
$x = 5$	(2) Division property of Equality

Equation	Steps
$6x + 14 = 12.8$	Given
$6x = -1.2$	(3) Subtraction property of Equality
$x = -0.2$	(4) Division property of Equality

Equation	Steps
$-6 = 3x - (x + 4)$	Given
$-6 = 3x - x - 4$	(5) Distributive Property
$-6 = 2x - 4$	(6) Simplify / combine like terms
$-2 = 2x$	(7) Addition property of Equality
$-1 = x$	(8) Division property of Equality
$x = -1$	(9) Symmetric Property

Solve and explain each step.

Equation	Steps
$4 - 3x = 16 + x$ $-x$	Given
$4 - 4x = 16$	Subtraction property of Equality
$-4x = 12$	Subtraction property of Equality
$x = -3$	Division Property of Equality