Name the property that each equation illustrates.

$9 + 7 = 7 + 9$ commutative prop. of ⊕

$(d \cdot 4) \cdot 3 = d \cdot (4 \cdot 3)$ associative prop of ⊙

$f + 0 = f$ identity prop of add

$-q = -1q$ mult. prop. of -1

$1m = m$ identity prop of ⊙

$2 + 0 = 2$ identity prop of add.

$np = pn$ commutative prop of mult.

$xy = yx$ commutative prop of mult.

$(-3 + 4) + 5 = -3 + (4 + 5)$ associative prop

$(3 \cdot 8)0 = 3(8 \cdot 0)$ associative prop. of mult.

$a + b = b + a$ commutative prop of add

$3(x + y) = 3x + 3y$ Distributive Prop

$6 + (-6) = 0$ inverse prop of addition

$-2(2 + y) = -4 + -2y$ distributive Prop

Simplify each expression. Justify each step.

$-4b + 9 + b$	Given
$-4b + b + 9$	commutative prop of ⊕
$(-4 + 1)b + 9$	~~b~~ distributive prop.
$-3b + 9$	addition/CLT

$7x - 5(3 + x)$	Given
$7x - 15 - 5x$	Distributive Prop.
$7x - 5x - 15$	commutative Prop of ⊕
$x(7 - 5) - 15$	Distributive Prop
$x(2) - 15$	subtraction/CLT
$2x - 15$	commutative prop ⊙