Algebra 1R   Name _____
Unit 2 ~ Day 3 Homework

Solve each of the following equations.

1. $4x + 7 + 6x = 32$ 2. $x + 5(x - 1) = 7$

3. $\dfrac{k+5}{10} = \dfrac{k-12}{9}$ 4. $-3(x + 4) = 2(x - 11)$

5. Give a property of real numbers (associative, commutative, or distributive) or a property of equality
    (addition or multiplication) that justifies each step in the following equation:

$$3x + 1 + 2x - 7 = x + 22$$

(1) $3x + 2x + 1 - 7 = x + 22$ (1) _____

(2) $x(3+2) - 6 = x + 22$ (2) _____
    $5x - 6 = x + 22$

(3) $5x - 6 + 6 = x + 22 + 6$ (3) _____
    $5x = x + 28$

(4) $5x - x = x + 28 - x$ (4) _____

(5) $x(5-1) = 28$ (5) _____
    $4x = 28$

(6) $\dfrac{1}{4} \cdot 4x = \dfrac{1}{4} \cdot 28$ (6) _____
    $x = 7$