HW 58

4.4

3. c) $6 - 15x + 10 = -44$ distributive prop.

$-15x + 16 = -44$ combine like terms

$-16 \quad -16$ subtraction prop.

$\frac{-15x}{-15} = \frac{-60}{-15}$ division prop.

$\boxed{x = 4}$

d) $-12 + 12 - 15x = 12$ distribution

$\frac{-15x}{-15} = \frac{12}{-15}$ combine like terms

$x = -12/15 = \boxed{-4/5}$ division prop

4. b) $7 - 8 + x = 9$

$-1 + x = 9$

$+1 \quad +1$

$\boxed{x = 10}$

$7 - (8 - 10) = 9$

$7 - (-2) = 9$

$9 = 9 \checkmark$

d) $-8 - 2x - 6 = 4$

$-2x - 14 = 4$

$+14 \quad +14$

$\frac{-2x}{-2} = \frac{18}{-2}$

$\boxed{x = -9}$

$-8 - 2/5(5(-9) + 15) = 4$

$-8 - 2/5(-30) = 4$

$-8 + 12 = 4$

$4 = 4 \checkmark$

5. $y + 20 = -(x + 3.6)$

a) $(-3.6, -20)$

b) $0.2 + 20 = -(x + 3.6)$

$\frac{20.2}{-1} = \frac{-(x + 3.6)}{-1}$

$-20.2 = x + 3.6$

$-3.6 \quad -3.6$

$\boxed{-23.8 = x}$

6. c) $-6(x - 12)$

d) $10(x - 25)$

7. a) $p = 7(q - 2) + 3$

$-3 \quad -3$

$\frac{p - 3}{7} = \frac{7(q - 2)}{7}$

$\frac{p - 3}{7} = q - 2$

$+2 \quad +2$

$\boxed{\frac{p - 3}{7} + 2 = q}$

b) $3a - 2b = 9$

$-3a \quad -3a$

$\frac{-2b}{-2} = \frac{-3a + 9}{-2}$

$\boxed{b = 3/2\,a - 9/2}$

c) $\frac{y + 4}{x - 2} = 14 \cdot x - 2$

$\frac{y + 4}{14} = \frac{14(x - 2)}{14}$

$\frac{y + 4}{14} = x - 2$

$+2 \quad +2$

$\boxed{\frac{y + 4}{14} + 2 = x}$

4.5

1. a) slope: $\frac{-8}{2} = -4$

$y - 4 = -4(x-2)$

b) slope: $1/3$

$y - 0 = 1/3(x-3)$

$\boxed{y = 1/3(x-3)}$

c) slope: $-2/5$

$\boxed{y + 4 = -2/5(x-5)}$

d) slope: $5/4$

$y - 0 = 5/4(x-4)$

$\boxed{y = 5/4(x-4)}$

2. a) pts: (1,1) & (8,4)

slope $= \frac{4-1}{8-1} = \frac{3}{7}$

$\boxed{y - 1 = 3/7(x-1)}$

graphs & pts chosen will vary.

b) (5,3) & (3,7)

slope $= \frac{7-3}{3-5} = \frac{4}{-2} = -2$

$\boxed{y - 7 = -2(x-3)}$

graphs & points choosen will vary.