



p. 172 #11 a) – k)

p. 172 #11 a)

$$2x^2 - 16x = 0$$

$$2x(x - 8) = 0$$

$$2x = 0$$

$$x = 0$$

$$x - 8 = 0$$

$$x = 8$$

p. 172 #11 b)

$$x^2 - 16 = 0$$

$$(x - 4)(x + 4) = 0$$

$$x - 4 = 0$$

$$x = 4$$

$$x + 4 = 0$$

$$x = -4$$

p. 172 #11 c)

$$x^2 - 8x + 16 = 0$$

$$(x - 4)(x - 4) = 0$$

$$x - 4 = 0$$

$$x = 4$$

$$x - 4 = 0$$

same solution

p. 172 #11 d)

$$x^2 - 3x + 2 = 0$$

$$(x - 2)(x - 1) = 0$$

$$x - 2 = 0$$

$$x = 2$$

$$x - 1 = 0$$

$$x = 1$$

p. 172 #11 e)

$$x^2 + 5x - 36 = 0$$

$$(x + 9)(x - 4) = 0$$

$$x + 9 = 0$$

$$x = -9$$

$$x - 4 = 0$$

$$x = 4$$

p. 172 #11 f)

$$x^2 + 13x + 36 = 0$$

$$(x + 9)(x + 4) = 0$$

$$x + 9 = 0$$

$$x = -9$$

$$x + 4 = 0$$

$$x = -4$$

p. 172 #11 g)

$$2x^2 - 3x = 2$$

$$2x^2 - 3x - 2 = 0$$

$$2x^2 - 4x + x - 2 = 0$$

$$2x(x-2) + 1(x-2) = 0$$

$$(x-2)(2x+1) = 0$$

$$x - 2 = 0$$

$$x = 2$$

$$2x + 1 = 0$$

$$2x = -1$$

$$x = -\frac{1}{2}$$

p. 172 #11 h)

$$9x^2 + 1 = 6x$$

$$9x^2 - 6x + 1 = 0$$

$$9x^2 - 3x - 3x + 1 = 0$$

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

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

$$3x - 1 = 0$$

$$3x - 1 = 0$$

$$3x = 1$$

$$x = \frac{1}{3}$$

same solution

p. 172 #11 i)

$$2x^2 = x + 15$$

$$2x^2 - x - 15 = 0$$

$$2x^2 - 6x + 5x - 15 = 0$$

$$2x(x - 3) + 5(x - 3) = 0$$

$$(x - 3)(2x + 5) = 0$$

$$x - 3 = 0$$

$$x = 3$$

$$2x + 5 = 0$$

$$2x = -5$$

$$x = -2.5$$

p. 172 #11 j)

$$8x^2 + 14x = 15$$

$$8x^2 + 14x - 15 = 0$$

$$8x^2 - 6x + 20x - 15 = 0$$

$$2x(4x - 3) + 5(4x - 3) = 0$$

$$(4x - 3)(2x + 5) = 0$$

$$4x - 3 = 0$$

$$4x = 3$$

$$x = 0.75$$

$$2x + 5 = 0$$

$$2x = -5$$

$$x = -2.5$$

p. 172 #11 k)

$$10x(x+2) = 10 - x$$

$$10x^2 + 21x - 10 = 0$$

$$10x^2 + 25x - 4x - 10 = 0$$

$$5x(2x+5) - 2(2x+5) = 0$$

$$(5x-2)(2x+5) = 0$$

$$5x - 2 = 0$$

$$5x = 2$$

$$x = 0.4$$

$$2x + 5 = 0$$

$$2x = -5$$

$$x = -2.5$$