

Ch 8 & 9

page 790 # 5, 8-10 A, 11, 13, 22, 25, 28, 29, 34
53, 59, 61

⑤

⑤

$$4x - 8y = 16$$

$$x - 2y = 4$$

$$\underline{3x - 6y = 12}$$

$$x - 2y = 4$$

$$\{(-\infty, \infty)\}$$

⑧

$l = \text{length}$
 $w = \text{width}$

$$2l + 2w = 34$$

$$4l - 3w = 33$$

$$l = 12$$

$$w = 5$$

⑨

$x = \text{hotel}$
 $y = \text{car}$

$$3x + 2y = 360$$

$$\underline{4x + 3y = 500}$$

hotel \$80/day
car \$60/day

⑩

$x = \text{apples}$
 $y = \text{avocados}$

$$100x + 350y = 1000$$

$$24x + 14y = 100$$

3 apples 2 avocados

⑪

$$\{(0, 1, 2)\}$$

⑬

$$(1, 4)$$

$$4 = a + b + c$$

$$y = 3x^2 - 4x + 5$$

$$(3, 20)$$

$$20 = 9a + 3b + c$$

$$(-2, 25)$$

$$25 = 4a - 2b + c$$

Ch 8

$$\textcircled{22} \quad \frac{7x^2 - 7x + 23}{(x-3)(x^2+4)} = \frac{A}{x-3} + \frac{Bx+C}{x^2+4}$$

$$7x^2 - 7x + 23 = A(x^2+4) + (Bx+C)(x-3)$$

$$Ax^2 + 4A + Bx^2 + Cx - 3Bx - 3C$$

$$Ax^2 + Bx^2 - 3Bx + Cx + 4A - 3C$$

$$A+B=7$$

$$-3B+C=-7$$

$$4A-3C=23$$

$$A=5$$

$$B=2$$

$$C=-1$$

$$\frac{5}{x-3} + \frac{2x-1}{x^2+4}$$

$\textcircled{25}$

$$5y = x^2 - 1$$

$$y = x - 1$$

$$5(x-1) = x^2 - 1$$

$$5x - 5 = x^2 - 1$$

$$x^2 - 5x + 4 = 0$$

$$(x-4)(x-1) = 0$$

$$\{(4, 3) (1, 0)\}$$

28

$$\begin{aligned} 2x^2 + y^2 &= 24 \\ x^2 + y^2 &= 15 \end{aligned}$$

$$x^2 = 9$$

$$x = \pm 3$$

$$y^2 = 6$$

$$y = \pm \sqrt{6}$$

$$(3, \sqrt{6}) \quad (3, -\sqrt{6}) \quad (-3, -\sqrt{6}) \quad (-3, \sqrt{6})$$

29

$$xy - 4 = 0$$

$$y - x = 0$$

$$y = x$$

$$x^2 = 4$$

$$x = \pm 2$$

$$(2, 2) \quad (-2, -2)$$

34

$$x^2 + y^2 = 13$$

$$x^2 - y = 7$$

$$y^2 + y = 6$$

$$y^2 + y - 6 = 0$$

$$(y+3)(y-2) = 0$$

$$y = -3$$

$$y = 2$$

$$x^2 + 3 = 7$$

$$x^2 = 4$$

$$x = \pm 2$$

$$x^2 - 2 = 7$$

$$x^2 = 9$$

$$x = \pm 3$$

$$(2, -3) \quad (-2, -3)$$

$$(3, 2) \quad (-3, 2)$$

53, 59, 61 check your book

Chap 9 - check all answers in your book