

55/6 Homework

① a) $3(x+2)$ b) $y(1-y)$
c) $2(a+b)(a-b)$ d) $(u-3)(u+2)$
e) $5(k+3)(k-3)$ f) $2(d+4)(d-3)$
 $2(d+8)(d-9)$

② 10% of 2400 = 240
5% → 120
35% = 720 + 120 = 840
 $\frac{1}{8}$ of 840 visited Florida, so 105 people.

③ $p = 2(-4)^3 - 3(-4)(-2)$
 $= 2(-64) - 3(8)$
 $= -128 - 24 = -152$

④ a) $6w - 3 - w + 4 = 5w + 1$
b) $4p - (4p^2 - 6p - 6p + 9)$
 $= 4p - 4p^2 + 12p - 9$
 $= -4p^2 + 16p - 9$

⑤ $3.66 \times 10^5 \times 40000$
 ~~$= 1.464 \times 10^9$~~
 1.464×10^{10}

$$\textcircled{6} \quad a) \quad \frac{2x}{10} + \frac{5y}{10} = \frac{2x+5y}{10}$$

$$b) \quad \frac{5w}{15} + \frac{6b}{15} = \frac{5w+6b}{15}$$

$$c) \quad \frac{2v}{4} - \frac{3x}{4} = \frac{2v-3x}{4}$$

$$d) \quad \frac{m}{n}$$

$$e) \quad \frac{y}{2} \times \frac{3}{y} = \frac{3y}{2y} = \frac{3}{2}$$

$$\textcircled{7} \quad a) \quad (x+2)^2 - 11$$

$$b) \quad -(y^2 + 8y - 6) = -(y+4)^2 - 2$$
$$= -(y+4)^2 + 2$$

$$c) \quad 3(p^2 - 2p + 4) = 3(p-1)^2 + 9$$
$$= 3(p-1)^2 + 9$$

$$\textcircled{8} \quad \frac{x}{360} \times \pi \times 26 = 3.4$$

$$x = 3.4 \div \pi \div 26 \times 360$$
$$= 14.99^\circ \quad (2d.p.)$$