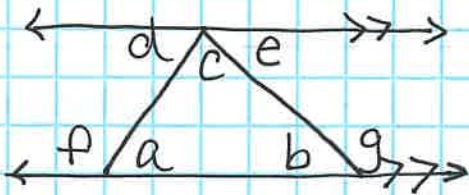


homework 6-46 to 6-52

6-46



$$a = 53^\circ \text{ (given)}$$

$$b = 55^\circ \text{ (straight } \Delta)$$

$$c = 72^\circ \text{ (}\Delta \text{ sum}^{\text{angle}})$$

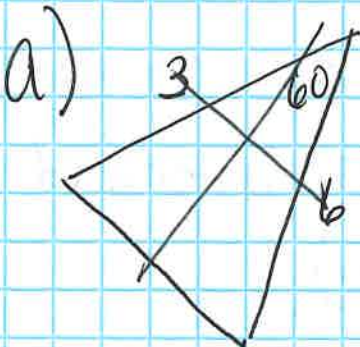
$$d = 53^\circ \text{ (alt. interior angle)}$$

$$e = 55^\circ \text{ (alt interior } \angle\text{'s} \text{ or straight } \angle\text{'s)}$$

$$f = 127^\circ \text{ (straight angle)}$$

$$g = 125^\circ \text{ (given)}$$

6-47



can't do

(skipped section)

6-48

a) If the ground is wet, then it is raining

(Not always true)

b) If a polygon is a rectangle then it is a square

(Not always true)

c) If a polygon has 4 - 90° angles then it is a rectangle.

(Not always true)

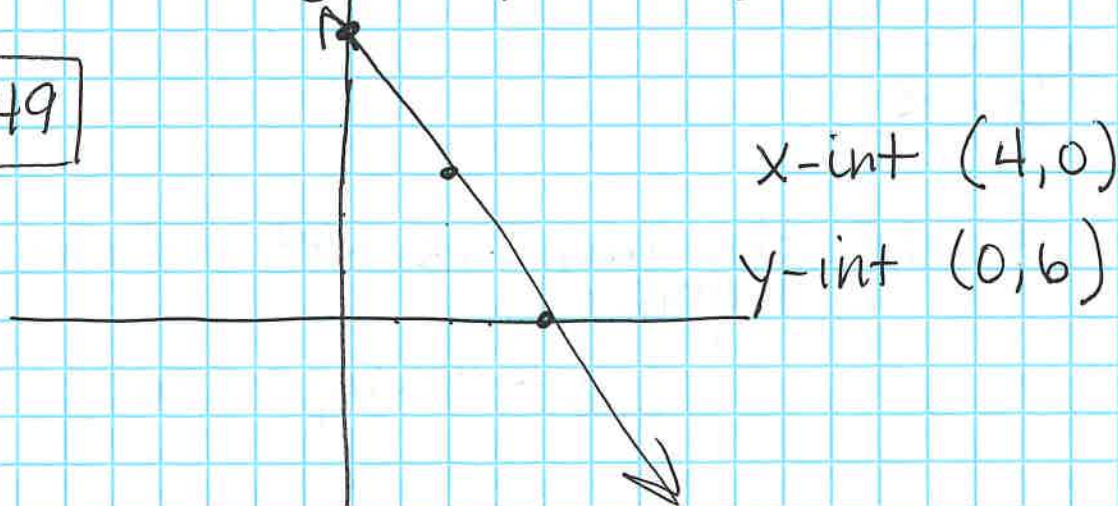
d) If the shape is a triangle, then it has 3 angles.

(always true)

e) If vertical angles are congruent, then the two lines intersect

(always true)

6-49



6-50

$$a) \frac{7-y}{5} = \frac{3}{4}$$

$$4(7-y) = 15$$

$$28 - 4y = 15$$

$$-4y = -13$$

$$y = 3.25$$

$$b) \frac{3}{y} = \frac{6}{y-2}$$

$$3(y-2) = 6y$$

$$3y - 6 = 6y$$

$$-6 = 3y$$

$$-2 = y$$

$$c) \frac{\text{inches}}{\text{month}} = \frac{1.75}{4.5} = \frac{7}{18} \text{ per month}$$

$$\frac{1\frac{3}{4}}{4\frac{1}{2}} = \frac{\frac{7}{4}}{\frac{9}{2}} \Rightarrow \frac{7}{4} \cdot \frac{2}{9} = \frac{7}{18}$$

times
12

$$\frac{7}{18} \cdot 12$$

$$\frac{84}{18} = 4\frac{2}{3}$$

$$d) \frac{x}{x+8} = \frac{4}{12}$$

$$12x = 4(x+8)$$

$$12x = 4x + 32$$

$$8x = 32$$

$$x = 4$$

6-51

Assume missing a color - broken up
into 8 sections
3 red 1 yellow 3 blue

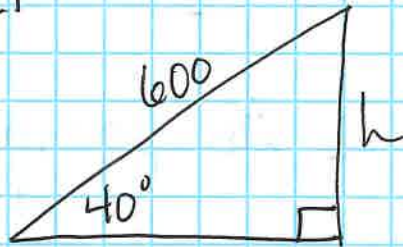
a) $\frac{3}{8}$

b) $\frac{1}{8}$

c) $\frac{3}{8}$

d) $\frac{1}{8}$

6-52



$$\sin 40 = \frac{h}{600}$$

$$h \approx 385.67 \text{ feet}$$