

### 8.3 Foundations of Math II

P. 479 #1-8

1. a)  $\frac{6}{10} = \frac{3}{5}$        $\frac{3}{5} = 60\%$

b)  $\frac{3}{2}$        $\frac{3}{2} = 150\%$

2. a) 112%      original is smaller because over 100%

b) 0.75      original is larger because under 1

c)  $\frac{4}{9}$       original is larger because under 1

3. a) 5 in : 6 ft      or      5 in : 72 in

b)  $\frac{5}{72}$

4.	$\frac{6}{9} = \frac{h}{8}$	$\frac{6}{9} = \frac{g}{6}$		$\frac{9}{6} = \frac{x}{4}$	$\frac{9}{6} = \frac{y}{5}$
	48 = 9h	36 = 9g		36 = 6x	45 = 6y
	5.3 = h	4.0 = g		6.0 = x	7.5 = y

5. a)  $\frac{2.3}{1.9} = 1.21$

b)  $\frac{3.4}{1.9} = 1.79$

c)  $\frac{1.6}{1.9} = 0.84$

6. a) living room:  $\frac{2.4}{0.005} = 480\text{cm}$        $\frac{2.0}{0.005} = 400\text{cm}$

4.8m x 4m

bedroom #1:  $\frac{2.5}{0.005} = 500\text{cm}$        $\frac{2.0}{0.005} = 400\text{cm}$

5m x 4m

p. 479 cont.

6. a) cont.

$$\text{bedroom \#2: } 2\text{ cm} \times 2\text{ cm} = 4\text{ m} \times 4\text{ m}$$

$$\text{bedroom \#3: } 2\text{ cm} \times 2\text{ cm} = 4\text{ m} \times 4\text{ m}$$

b) see #6a

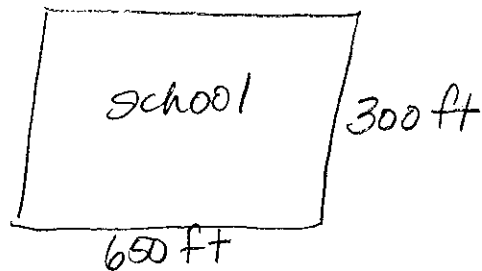
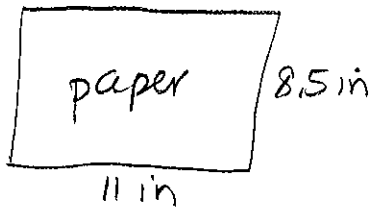
c) living room:  $4.8 \times 4 = 19.2\text{ m}^2$

bedroom #1:  $5 \times 4 = 20\text{ m}^2$  ← greatest area

bedroom #2:  $4 \times 4 = 16\text{ m}^2$

bedroom #3:  $4 \times 4 = 16\text{ m}^2$

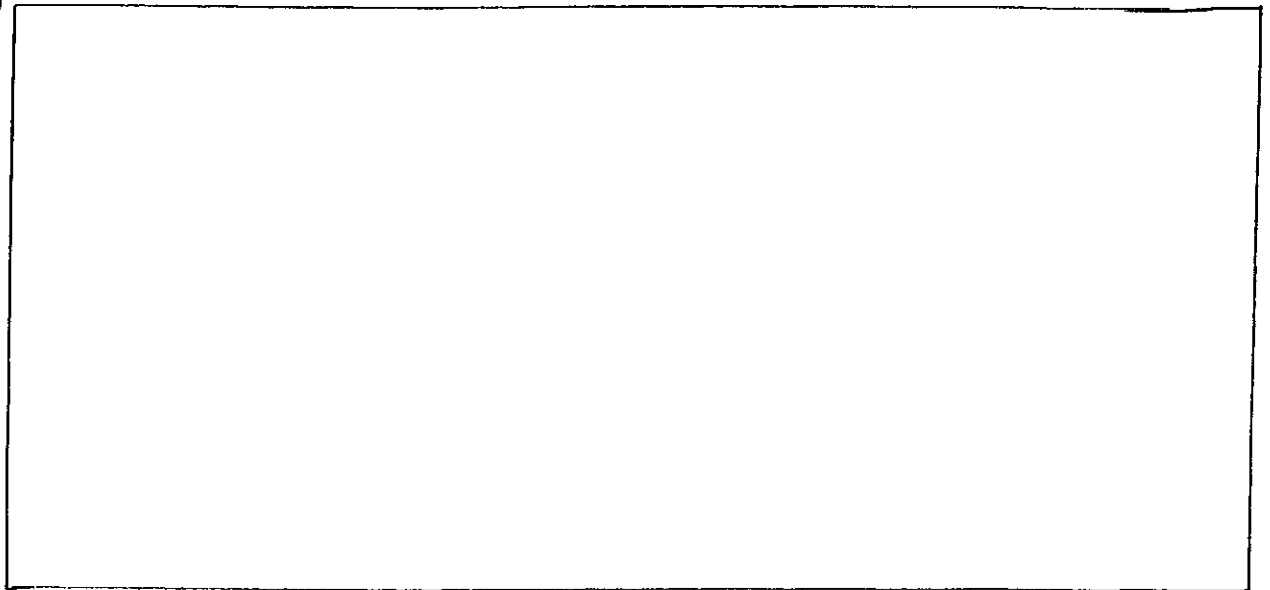
7. a)



if  $1\text{ in} = 100\text{ ft}$  you need

$$\frac{300}{100} = 3\text{ in} \text{ and } \frac{650}{100} = 6.5\text{ in}$$

b)



$$3\text{ in} = 300\text{ ft}$$

$$6.5\text{ in} = 650\text{ ft}$$

D.479 cont.

8.

$$\frac{40}{50} = 0.8 \text{ cm}$$

$$\frac{50}{50} = 1 \text{ cm}$$

$$\frac{320}{50} = 6.4 \text{ cm}$$

$$\frac{300}{50} = 6 \text{ cm}$$

$$\frac{130}{50} = 2.6 \text{ cm}$$

$$\frac{180}{50} = 3.6 \text{ cm}$$

$$\frac{120}{50} = 2.4 \text{ cm}$$

$$\frac{350}{50} = 7 \text{ cm}$$

