

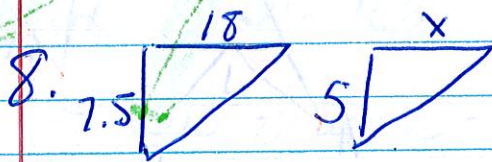
$$\triangle ABC \sim \triangle DEF$$

$$\angle A \cong \angle D$$

$$\angle B \cong \angle E$$

$$\angle C \cong \angle F$$

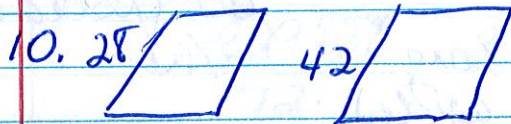
$$\frac{AB}{DE} = \frac{AC}{DF} = \frac{BC}{EF}$$



$$\frac{7.5}{5} = \frac{18}{x}$$

$$\frac{7.5x}{7.5} = \frac{90}{7.5}$$

$$x = 12$$

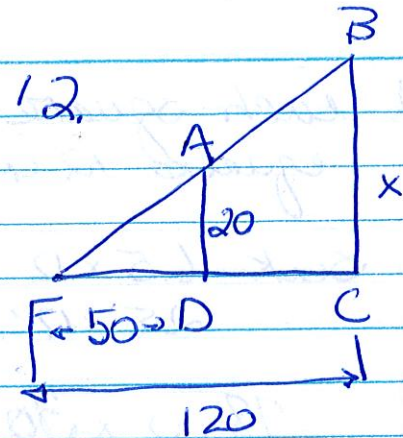


$$\frac{28}{42} = \frac{35}{z}$$

$$28z = 42 \cdot 35$$

$$\frac{28z}{28} = \frac{1470}{28}$$

$$x = 52.5$$



$$\frac{50}{20} = \frac{120}{x}$$

$$50x = 20 \times 120$$

$$\frac{50x}{50} = \frac{2400}{50}$$

$$x = 48 \text{ yds}$$

14. 1 cm : 15 km

$$\frac{1 \text{ cm}}{15 \text{ km}} = \frac{12 \text{ cm}}{x}$$

$$1 \text{ cm} = 12 \text{ cm}$$

$$x = 15 \times 12$$

$$x = 3 \text{ km}$$

18.

ABBOTTSVILLE      BROKEN  
BRANCA

175

$$1 \text{ mi} = 175 \text{ mi}$$

$$x = 2.5 \text{ in}$$

$$2.5 \times 1 = 175x$$

$$\frac{2.5}{70} = \frac{2.5}{x}$$

$$70 = x$$

19. each square equals 12 in = 1 ft

Sub  $6.5 \times 12 \text{ in} = 78 \text{ in}$   
 $2.5 \times 12 \text{ in} = 30 \text{ in}$

$78 \text{ in} \times 30 \text{ in}$   
 $78 \text{ in} \mid \frac{1 \text{ ft}}{12 \text{ in}} = 6.5 \text{ ft}$

$30 \text{ in} \mid \frac{1 \text{ ft}}{12 \text{ in}} = 2.5 \text{ ft}$

$\therefore 6.5 \text{ ft} \times 2.5 \text{ ft}$

20 total length & width

20 square long  
 10 square wide

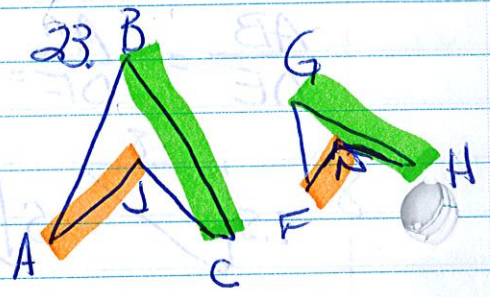
1 square = 12 in.

$20 \cdot 12 = 240 \text{ inches long}$   
 $10 \times 12 = 120 \text{ inches wide}$

$240 \text{ inches} \mid \frac{1 \text{ ft}}{12 \text{ in}} = 20 \text{ ft}$   
 $120 \text{ inches} \mid \frac{1 \text{ ft}}{12 \text{ in}} = 10 \text{ ft}$

$\therefore 20 \text{ ft} \times 10 \text{ ft}$

21. No. the space between the dryer and closet is 3 ft. so it is too small for  $3\frac{1}{2} \text{ ft}$  laundry cart



student  $\frac{BC}{CJ} = \frac{GH}{FN}$  TO FIND FN

A.) The student used CJ instead of AJ.

B.  $\frac{BC}{AJ} = \frac{GH}{FN}$   
 OR  
 $\frac{BC}{GH} = \frac{AJ}{FN}$

25. width = 2 in  
length = 9 in  
height = 4 in  
scale 1:34

$$\text{Volume} = lwh$$

$$2 \cdot 9 \cdot 4$$

$$72$$

apply scale factor

$$\text{width} = 2 \times 34 = 68$$

$$\text{length} = 9 \times 34 = 306$$

$$\text{height} = 4 \times 34 = 136$$

$$\therefore \text{New volume} = l \cdot w \cdot h$$

$$136$$

$$2829888$$

to find the times  
take new volume  
and divide by old  
volume.

$$\frac{2829888}{72} = 39304 \text{ times}$$