Ratios and Proportions

Write the ratio of the first measurement to the second measurement.

diameter of a salad plate: 8 in. 1)

diameter of a dinner plate: 1 ft.

2) garden container width: 2 ft 6 in. garden container length: 8 ft.

width of a canoe: 28 in. 3)

length of a canoe: 12 ft. 6 in.

height of a book: 11 in. 4)

height of a bookshelf: 3 ft. 3 in.

- 5) The perimeter of a rectangle is 280 cm. The ratio of the width to the length is 3:4. What is the length of the

rectangle? 2 (3x+4x)=280

11

6) The ratio of country albums to jazz albums in a music collection is 2:3. If the music collection has 45 albums, how many are country albums?

$$x = 9$$

$$2x + 3x = 45$$

$$5x = 45$$

$$x = 9$$

$$= 2(9)$$

$$= 18 \text{ al hum s}$$

7) The lengths of the sides of a triangle are in the extended ratio 3:6:8. The triangle's perimeter is 510 cm. What are the lengths of the sides?

$$3x+6x+8x=510$$

90 cm, 180 cm, + 240 cm

Solve each proportion. Show all work.

$$\frac{x}{4} = \frac{13}{52}$$

$$\frac{2}{7} = \frac{b+1}{56}$$

11)
$$\frac{x}{2x+1} = \frac{16}{40} \frac{2}{5}$$
$$5(x) = 2(2x+1)$$

$$5(x) = 2(2xt)$$

$$\frac{x}{-\frac{6}{5}}$$

Use the proportion
$$\frac{x}{z} = \frac{6}{5}$$
. Complete each statement. Justify your answer.

$$\frac{x}{6} = \frac{2}{5}$$

$$\frac{x+z}{z} = \frac{\cancel{//}}{\cancel{5}}$$

$$\frac{z}{x} = \frac{5}{6}$$

15)
$$5x = 62$$

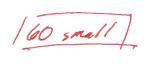
16) The measures of two consecutive angles in a parallelogram are in the ratio 4:11. What are the measures of the four angles of the parallelogram?

2=12

4x+1/x=180 /48°, 132°, 48°, 132°]

- 17) A band director needs to purchase new uniforms. The ratio of small to medium to large uniforms is 3:4:6.
 - a. If there are 260 total uniforms to purchase, how many will be small?

3x14x + 6x = 760 132 = 260 x = 20



b. How many of these uniforms will be medium?

80 medium

120 large

c. How many of these uniforms will be large?