Name: _____

Using Ratios and Proportions

Exercise 1: Circle the following correct proportions?

$\frac{2}{5}=\frac{8}{20}$; $\frac{2}{5}=\frac{12}{30}$; $\frac{2}{5}=\frac{6}{15}$; $\frac{2}{5}=\frac{10}{15}$

Exercise 2: Solve the proportion.

1) $\frac{12}{k}=\frac{5}{7}$
2) $\frac{20}{28}=\frac{45}{d}$
3) $\frac{12}{7}=\frac{4}{x-8}$
4) $\frac{12}{21}=\frac{3}{a}$
5) $\frac{x}{6}=\frac{x+1}{8}$
6) $\frac{x}{2}=\frac{x+3}{32}$
7) $\frac{20}{25}=\frac{c}{30}$
8) $\frac{11}{5}=\frac{5}{x+2}$

Exercise 3: Write each ratio in three ways. Write your answer in simplest form.

1) 14 black marbles, 7 blue marbles, and 8 brown marbles
   The ratio of black marbles to all the marbles is:

2) 9 black marbles, 19 white marbles, 10 green marbles, and 3 orange marbles
   The ratio of all the marbles to black marbles is:

3) 11 black marbles, 9 violet marbles, and 17 green marbles
   The ratio of all the marbles to green marbles is:

4) 19 black marbles and 2 blue marbles
   The ratio of blue marbles to black marbles is:

Exercise 4: Calculate the measures of two supplementary angles if the ratio of their measures is 10:8.

Exercise 5: Calculate the measures of the angles of a pentagon if the measures are in the ratio 4:6:6:7:7: c

Exercise 6: If 32 addresses are on 2 pages of the address book, then a addresses are on 9 pages. Find the value of a.

Exercise 7: The measures of the angles in ΔABC are in the extended ratio of 3:4:8. Find the measures of the angles.