

Ratios:

1. Write each ratio in three different ways, write in lowest terms.
  - a. Over two weeks, 8 days were sunny and six were cloudy.
  - b. Three red tiles compared to 9 black tiles.
  - c. The area schedule list 10 hockey games, 8 skating classes, and 2 family times. Compare hockey games to the total time slots.

2. Fill in the missing numbers:

a.  $\frac{1}{3} = \frac{\quad}{6}$

c.  $\frac{\quad}{3} = \frac{10}{15}$

b.  $\frac{2}{\quad} = \frac{18}{45}$

d.  $\frac{4}{7} = \frac{24}{\quad}$

3. Fill in the Ratio Tables

a.

Bottles of juice	60				54
Bottles of Water	90	9	27	99	

b.

Boys	2	20	40		
Girls	3			15	45

4. Jerry makes bead necklaces. Each necklace has red, blue and purple beads in the ratio 5:3:1. One necklaces has 36 beads altogether. How many of each colour does it have?

Rates:

1. What is a rate? Give an example.
  
2. Write two equivalent rates for each case. (one should be a unit rate.)
  - a. Ken can walk 40 dogs in 8 hours
  
  - b. Robin can clean 72 rooms in 6 days.
  
  - c. At the market, 8 apples cost \$4.
  
3. Calculate the unit cost. (the cost for 1 kg, 1L, 1h or 1m<sup>2</sup>)
  - a. A plane flew 765 miles in 5 hours.
  
  - b. Collin's graduation picnic will cost \$16 if it has 8 attendees.
  
  - c. 48 deliveries in 16 hours
  
  - d. 32 kilometres in 2 minutes
  
4. Donald read a total of 12 books over 4 months. If Donald has read 18 books so far, how many months has he been with his book club? Assume the relationship is directly proportional.

### Rates and Ratios Word Problems

1. Delaney goes to the store to buy some mushroom soup. She finds that a 110ml can costs \$1.49. a 500ml can of the same brand costs \$4.29. Which is the better buy?
2. In the first 9 basketball games of the season, Sam scored 114 points.
  - a. What is Sam's average points per game?
  - b. If this continues, how many points will he have after 24 games?
3. The ratio of the running speed of cats to domestic pigs to chickens is 30:11:9. Approximately how many meters could a pig and a chicken run in the time it takes a cat to run 1km? (Hint 1 km=1000m)
4. Cindy downloaded three files, all at the same rate. The 1600 KB file downloaded in 14 s. The other two files downloaded in 21 s and in 10.5 s. About how large are the other two files?