Ratio

Section 1: Understanding Ratios

1. Write the ratio of apples to bananas if there are 8 apples and 6 bananas.

   To simplify divide both sides by the highest common factor which is:

   6:8 in simplest form is:

2. The ratio of boys to girls in a class is 3:5. If there are 15 boys, how many girls are there?

   3:5 ↓ x
   :15

   The quotient of 15 and 5 will tell you how many times larger one number is compared to another. To find the quotient you need to divide the larger number by the smaller number.

   15 is x larger than 5, so the unknown must x larger than 3.

3. Express the ratio 12:18 in its simplest form.

   To simplify divide both sides by the highest common factor which is:

   12:18 in simplest form is:

4. A recipe requires a sugar-to-flour ratio of 2:3. If you have 10 cups of sugar, how much flour do you need?

   x →
   2:3
   10:

   The quotient of 3 and 2 will tell you how many times larger one number is compared to another. To find the quotient you need to divide the larger number by the smaller number.

   3 is x larger than 2, so the unknown must x larger than 10.

5. In a school, the ratio of teachers to students is 2:50. If there are 200 students, how many teachers are there?

   ÷ ←
   2:50
   :200

   The quotient of 50 and 2 is
   This means that 2 is x smaller than 50.
   so
   The unknown must be x smaller than 200.

6. In a school, the ratio of teachers to students is 4:80. If there are 240 students, how many teachers are there

   4:80 ↓ x
   :240

   The quotient of 80 and 240 is
   This means that 240 is x larger than 80.
   so
   The unknown must be x larger than 4.

LIVEWORKSHEETS

Section 2: Calculating Part of a Quantity Using Ratios

1. A bag contains red and blue marbles in the ratio 2:3. If there are 30 marbles in total, how many are red?

   How many parts are there altogether in the ratio?

   1 part = total ÷ number of parts

   1 part = total x number of parts

   1 part =

   parts are red so out of 30 marbles there must be red marbles.

   Number of red marbles in a bag of 30 is equal to x =

   What fraction of the marbles are red? ____

   What fraction of the marbles are blue? ____

2. A football team has players in the ratio of defenders to attackers as 4:1. If there are 25 players, how many are defenders?

   How many parts are there altogether in the ratio?

   1 part = total ÷ number of parts

   1 part = total x number of parts

   1 part =

   parts are defenders so out of 25 players there must be defenders.

   Number of defenders in a team of 25 is equal to x =

   What fraction of the team are defenders? ____

   What fraction of the team are attackers? ____

3. The ratio of money shared between Alex and Ben is 5:3. If the total amount is $64, how much does Alex receive? $

   How many parts are there altogether in the ratio?

   1 part = total ÷ number of parts

   1 part = total x number of parts

   1 part =

   parts belong to Alex, so out of $64, Alex receives $

   Share of the money Alex receives is x = $

   What fraction of the money does Alex get?

   ____

   ____ X 64 = $

LIVEWORKSHEETS

4. . A company shares its profit among three partners in the ratio 3:2:1. If the total profit is $18,000, how much does each partner receive?

   The senior partner receives:$

   The junior partner receives:$

   The middle partner receives:$

5. A fruit juice is made by mixing water and orange concentrate in the ratio 5:2. If there are 21 litres of juice in total, how many litres of orange concentrate are used?

Bonus Challenge: A group of friends shares a pizza in the ratio 2:2:1. If the pizza has 25 slices, how many slices does each person get?

Person 1

Person 2

Person 3

LIVEWORKSHEETS