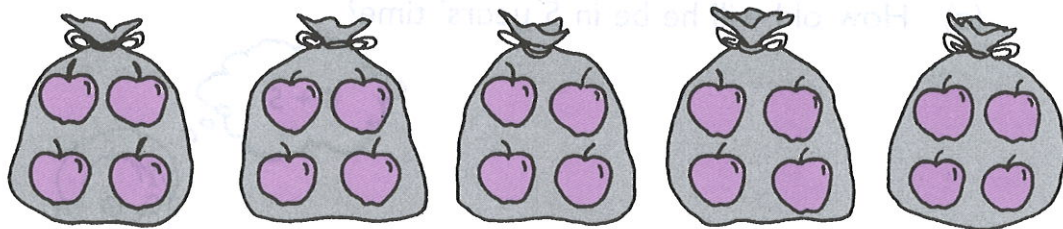4. There are 4 apples in each packet.

(a) How many apples are there in n packets?

Number of packets	Total number of apples
1	$4 \times 1 = 4$
2	$4 \times 2 = 8$
3	$4 \times 3 = 12$
4	$4 \times 4 = 16$
5	$4 \times 5 = 20$
n	$4n$

We write $4 \times n$ as $4n$.

(b) If $n = 8$, how many apples are there altogether?
(c) If $n = 11$, how many apples are there altogether?

5. There are 3 boxes of chicken wings. Each box contains p chicken wings.

(a) Express the total number of chicken wings in terms of p.

Total number of chicken wings = $3p$

$3p$ means $3 \times p$ or $p \times 3$.

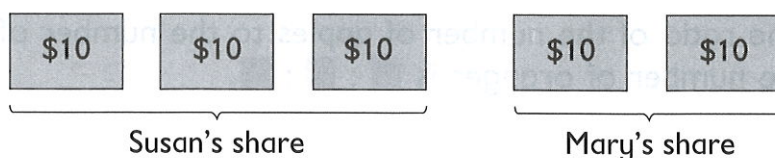(b) If each box contains 7 chicken wings, how many chicken wings are there altogether?

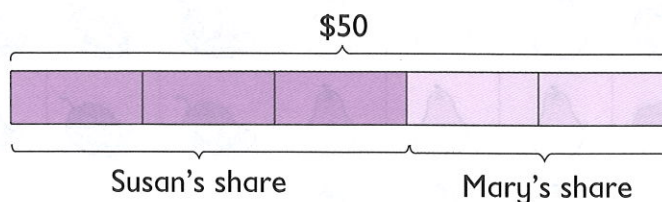$3p = 3 \times 7 = $ ■

There are ■ chicken wings altogether.

8

3 Ratio

1 Ratio and Fraction

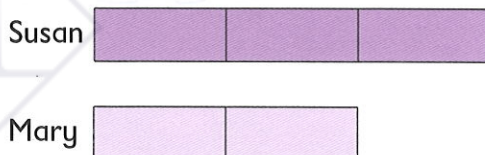Susan and Mary bought a present which cost $50. Susan, being the elder sister, paid a bigger share of the cost.

$10	$10	$10		$10	$10

Susan's share   Mary's share

We can also show how Susan and Mary shared the cost like this:

$50

Susan's share   Mary's share

> Susan and Mary shared the cost unequally.
> Susan's share is 3 units.
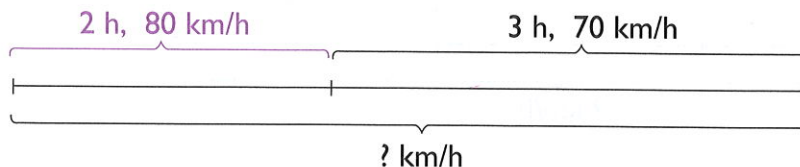> Mary's share is 2 units.
> Each unit is $10.

or like this:

Susan

Mary

The ratio of Susan's share to Mary's share is 3 : 2.

The ratio of Mary's share to Susan's share is ■ : ■.

21

13. A motorist traveled on a freeway for 2 hours at 80 km/h. He then traveled for another 3 hours at 70 km/h. Find his average speed for the whole trip.
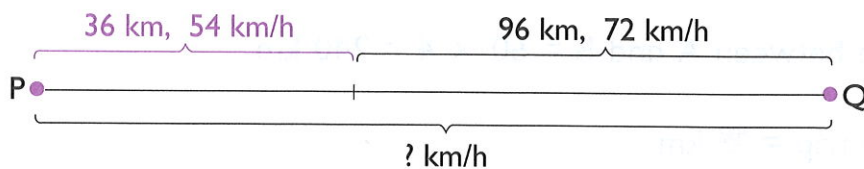
| 2 h, 80 km/h | 3 h, 70 km/h |

? km/h

Total distance traveled = ■ km

Total time taken = ■ h

Average speed for the whole trip = ■ km/h

14. Brian drove from Town P to Town Q. He traveled the first 36 km at an average speed of 54 km/h. He traveled the remaining 96 km at an average speed of 72 km/h. Find his average speed for the whole trip.

| 36 km, 54 km/h | 96 km, 72 km/h |

P● ●Q

? km/h

Total distance traveled = ■ km

Total time taken = ■ h

Average speed for the whole trip = ■ km/h

13. (a) Express 7.75 lb in pounds and ounces.

   (b) Express $2\frac{5}{6}$ ft in feet and inches.

   (c) Express 3.5 qt in quarts and cups.

14. What percentage of 2 ft is 6 in.?

15. Express 16 c as a percentage of 2 gal.

16. Draw a rhombus ABCD in which AB = 2 in. and ∠ BCD = 55°

17. John drove from Town A to Town B in 5 hours. His average speed for the first 3.5 hours was 65 mi/h. His average speed for the last 1.5 hours was 60 mi/h. What was the total distance he traveled?

18. The figure is made up of a rectangle and two triangles. Find the area of the figure.
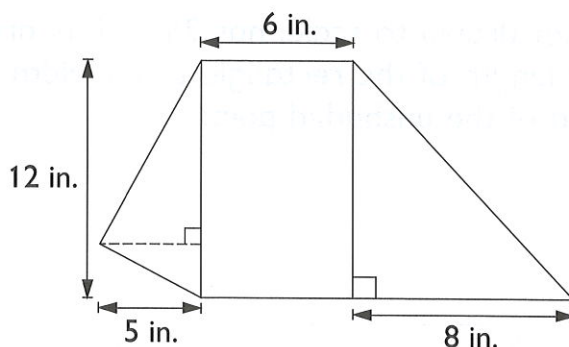
19. How many cubic feet are there in a cubic yard?

20. Which one of the following lengths is the shortest?

$3\frac{2}{3}$ yd,   11.75 ft,   122 in.

21. Adam is cycling at a speed of 8 mi/h. How many minutes will he take to cycle 6 mi?

22. Mrs. Johnson had 3 lb 7 oz of sugar. She used 4 oz sugar a day for 7 days. How much sugar was left? (Give the answer in pounds and ounces.)