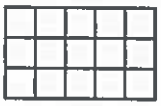
Mond Yr 4

FRACTIONS OF QUANTITIES 1

TARGET To find fractions of numbers and quantities.

Examples

$\frac{1}{3}$ of 15 = 15 ÷ 3
= 5



$\frac{2}{3}$ of 15 = (15 ÷ 3) × 2
= 5 × 2
= 10

$\frac{7}{10}$ of 60 = (60 ÷ 10) × 7
= 6 × 7
= 42

A

Use the array to help you find the answer.

1. $\frac{1}{3}$ of 18
2. $\frac{1}{6}$ of 18

3. $\frac{1}{4}$ of 20
4. $\frac{1}{5}$ of 20

Find $\frac{1}{10}$ of:

5. 40
6. 100
7. 60
8. 90.

Find $\frac{1}{5}$ of:

9. 15
10. 40
11. 30
12. 55.

Find $\frac{1}{3}$ of:

13. 12
14. 24
15. 15
16. 36.

Find $\frac{1}{4}$ of:

17. 24
18. 16
19. 40
20. 28.

B

Find

1. $\frac{1}{3}$ of 24
2. $\frac{2}{3}$ of 24
3. $\frac{1}{4}$ of 12
4. $\frac{3}{4}$ of 12
5. $\frac{1}{5}$ of 25
6. $\frac{4}{5}$ of 25
7. $\frac{1}{10}$ of 30
8. $\frac{9}{10}$ of 30
9. $\frac{5}{8}$ of 16
10. $\frac{2}{3}$ of 30
11. $\frac{5}{6}$ of 24
12. $\frac{3}{4}$ of 36
13. $\frac{4}{7}$ of 35
14. $\frac{3}{10}$ of 70
15. $\frac{7}{12}$ of 36
16. $\frac{2}{5}$ of 45

17. There are 12 eggs in a box. Five sixths are used. How many eggs have been used?
18. An orchard has 48 trees. Three eighths are in bud. How many trees are in bud?
19. A hospital has 400 beds. Ninety-nine hundredths are occupied. How many beds are occupied?
20. There are 27 children in a class. Eight ninths are at school. How many children are at school?

C

Find

1. $\frac{5}{6}$ of 54
2. $\frac{7}{8}$ of 56
3. $\frac{3}{7}$ of 42
4. $\frac{4}{9}$ of 72
5. $\frac{7}{10}$ of 1 metre
6. $\frac{3}{5}$ of £2·00
7. $\frac{99}{100}$ of 1 kg
8. $\frac{5}{11}$ of £13·20
9. There are 80 questions in a test. Curtis answers three fifths of the questions correctly. How many does he get wrong?
10. A football match lasts for 90 minutes. The first goal is scored after five sixths of the playing time. How much time is left?
11. There are 420 g of potatoes. Two sevenths of the potatoes is removed when they are peeled. What is the weight of the peeled potatoes?
12. A coach is travelling 225 km. It stops at a service station after five ninths of the journey is completed. How much further is there to go?

Tues Yr 4

FRACTIONS OF QUANTITIES 3

TARGET To find fractions of quantities.

Examples

$\frac{5}{100}$ of 600 g = (600 g ÷ 100) × 5
= 6 g × 5
= 30 g

$\frac{4}{5}$ of £90 = (£90 ÷ 5) × 4
= £18 × 4
= £72

A

Find $\frac{1}{10}$ of:

1. 50
2. 80
3. 100 g
4. 30 m

Find $\frac{1}{5}$ of:

5. 60
6. 25
7. 50
8. 35

Find $\frac{1}{3}$ of:

9. 30
10. 21
11. £27
12. 18 cm

Find $\frac{1}{8}$ of:

13. 32
14. 56
15. 40 mm
16. 80 kg

17. How many minutes are there in one tenth of an hour?
18. A packet of ham weighs 200 g. One fifth is eaten. How much is left?
19. There are 100 beads on a necklace. One quarter are red. How many red beads are there?
20. There are sixty flowers in a display. One third are marigolds. How many are not marigolds?

B

Find

1. $\frac{3}{10}$ of 20 cm
2. $\frac{4}{7}$ of 14p
3. $\frac{5}{12}$ of £72
4. $\frac{7}{10}$ of 30 kg
5. $\frac{3}{8}$ of 80 g
6. $\frac{2}{3}$ of 24 litres
7. $\frac{3}{4}$ of 28p
8. $\frac{9}{100}$ of 400 ml
9. $\frac{5}{8}$ of £48
10. $\frac{4}{9}$ of 45 km
11. A roll of cling film is 24 m long. Seven eighths is used. How much is left?
12. A packet of cereal weighs 750 g. Three fifths has been used. How much has been used?
13. There are 30 safety pins in a packet. Five sixths are used. How many are left?
14. There are 180 spaces in a car park. Nine tenths are taken. How many cars are in the car park?

C

Find

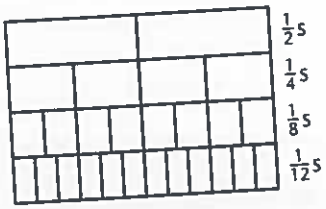
1. $\frac{3}{7}$ of £49
2. $\frac{4}{5}$ of 45 m
3. $\frac{33}{100}$ of 400 ml
4. $\frac{5}{6}$ of 120 g
5. $\frac{11}{12}$ of 60 mm
6. $\frac{9}{10}$ of 160 kg
7. $\frac{2}{9}$ of 63p
8. $\frac{3}{10}$ of 1500 ml
9. $\frac{7}{8}$ of 72 cm
10. $\frac{125}{100}$ of 4000 km
11. A garden has an area of 280 m². A lawn occupies four sevenths of the garden. What is the area of the lawn?
12. A crowd of 36 000 watch a football match. Five ninths are season ticket holders. How many are not season ticket holders?
13. A bottle of washing up liquid holds one litre. One twentieth is used every day. How much is used in a week?
14. A roll of wrapping paper is 4 m long. Three fifths is used. How much is left?

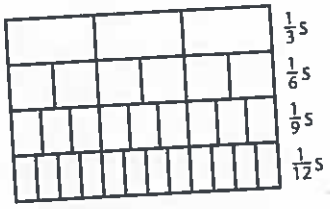
Wedn Yr 4

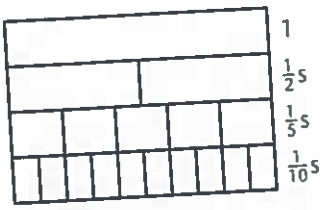
EQUIVALENT FRACTIONS

TARGET To recognise and show families of equivalent fractions.

Examples







A

Use the fraction charts. Copy and complete these equivalent fractions.

1. $\frac{3}{4} = \frac{\square}{8}$
2. $\frac{2}{3} = \frac{4}{\square}$
3. $\frac{\square}{5} = \frac{4}{10}$
4. $\frac{2}{\square} = \frac{3}{12}$
5. $\frac{6}{9} = \frac{\square}{12}$
6. $\frac{4}{5} = \frac{8}{\square}$

Write the equivalent fractions shown in each pair of diagrams.

7. 
8. 
9. 
10. 

B

Use the fraction charts. Copy and complete these families of fractions.

1. $\frac{1}{2} = \frac{\square}{4} = \frac{\square}{8} = \frac{\square}{16}$
2. $\frac{1}{4} = \frac{\square}{8} = \frac{\square}{12} = \frac{\square}{16}$
3. $\frac{1}{5} = \frac{\square}{10} = \frac{\square}{15} = \frac{\square}{20}$
4. $\frac{2}{3} = \frac{\square}{6} = \frac{\square}{9} = \frac{\square}{12}$

Use the diagram to help complete the equivalent fractions.

5.  $\frac{4}{5} = \frac{\square}{10}$
6.  $\frac{3}{4} = \frac{\square}{\square}$
7.  $\frac{1}{3} = \frac{\square}{\square}$
8.  $\frac{2}{3} = \frac{\square}{\square}$

Draw a diagram to show:

9. $\frac{3}{4} = \frac{9}{12}$
10. $\frac{1}{2} = \frac{5}{10}$
11. $\frac{2}{5} = \frac{4}{10}$
12. $\frac{2}{3} = \frac{6}{9}$

C

Copy and complete the equivalent fractions.

1. $\frac{4}{5} = \frac{\square}{10}$
2. $\frac{3}{10} = \frac{\square}{100}$
3. $\frac{5}{8} = \frac{\square}{16}$
4. $\frac{2}{3} = \frac{\square}{15}$
5. $\frac{3}{4} = \frac{\square}{16}$
6. $\frac{3}{7} = \frac{\square}{14}$
7. $\frac{1}{2} = \frac{8}{\square}$
8. $\frac{7}{10} = \frac{35}{\square}$
9. $\frac{5}{6} = \frac{15}{\square}$
10. $\frac{4}{9} = \frac{8}{\square}$
11. $\frac{19}{20} = \frac{95}{\square}$
12. $\frac{3}{4} = \frac{15}{\square}$

Continue these fraction chains for four further terms.

13. $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$
14. $\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$
15. $\frac{5}{8} = \frac{10}{16} = \frac{15}{24}$
16. $\frac{3}{10} = \frac{6}{20} = \frac{9}{30}$
17. $\frac{4}{5} = \frac{8}{10} = \frac{12}{15}$
18. $\frac{7}{8} = \frac{14}{16} = \frac{21}{24}$

Write three more fractions equivalent to:

19. $\frac{4}{11}$
20. $\frac{15}{24}$
21. $\frac{6}{21}$
22. $\frac{20}{45}$
23. $\frac{7}{12}$
24. $\frac{18}{39}$
25. $\frac{14}{18}$
26. $\frac{33}{60}$
27. $\frac{35}{42}$