Varied Fluency
Step 9: Fractions of a Quantity

National Curriculum Objectives:

Mathematics Year 4: (4F2) Recognise and show, using diagrams, families of common equivalent fractions
Mathematics Year 4: (4F10a) Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number

Differentiation:

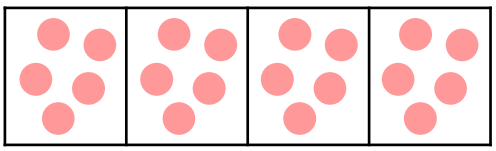
Developing Questions to support finding fractions of quantities. Involves unit fractions only.
Expected Questions to support finding fractions of quantities. Involves non-unit fractions in their simplest form.
Greater Depth Questions to support finding fractions of quantities. Involves non-unit fractions and the use of related facts.

More Year 4 Fractions resources.

Did you like this resource? Don't forget to review it on our website.

Fractions of a Quantity

1a. Circle the number that is $\frac{1}{4}$ of the whole number represented below.

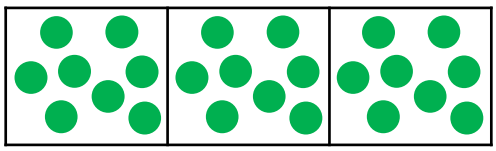


20 5 14

D VF

Fractions of a Quantity

1b. Circle the number that is $\frac{1}{3}$ of the whole number represented below.



13 24 8

D VF

2a. Solve the calculation.

$\frac{1}{3}$ of 21 = ☐

21		
7	7	7

D VF

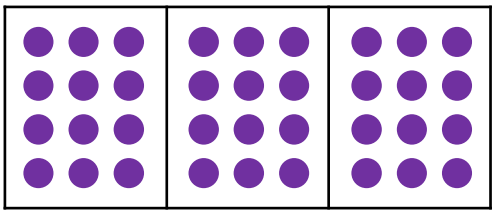
2b. Solve the calculation.

$\frac{1}{10}$ of 60 = ☐

60									
6	6	6	6	6	6	6	6	6	6

D VF

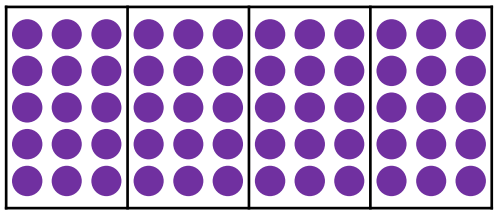
3a. Find a third of thirty-six.



$\frac{1}{3}$ of 36 = ☐

D VF

3b. Find a quarter of sixty.



$\frac{1}{4}$ of 60 = ☐

D VF

4a. Use counters to match the calculation to the answer.

A.	$\frac{1}{10}$ of 80	8
B.	$\frac{1}{4}$ of 24	6
C.	$\frac{1}{3}$ of 15	8
D.	$\frac{1}{2}$ of 16	5

D VF

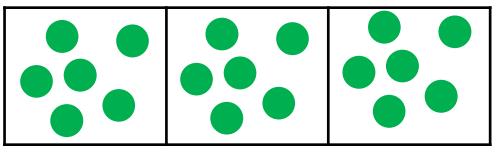
4b. Use counters to match the calculation to the answer.

A.	$\frac{1}{10}$ of 50	7
B.	$\frac{1}{3}$ of 21	5
C.	$\frac{1}{4}$ of 44	14
D.	$\frac{1}{2}$ of 28	11

D VF

Fractions of a Quantity

5a. Circle the number that is $\frac{2}{3}$ of the whole number represented below.

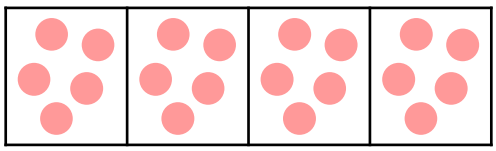


12 10 18

VF

Fractions of a Quantity

5b. Circle the number that is $\frac{3}{4}$ of the whole number represented below.

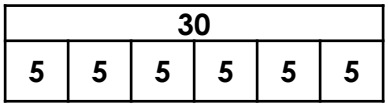


5 20 15

VF

6a. Solve the calculation.

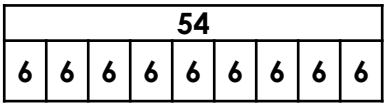
$\frac{5}{6}$ of 30 = ☐



VF

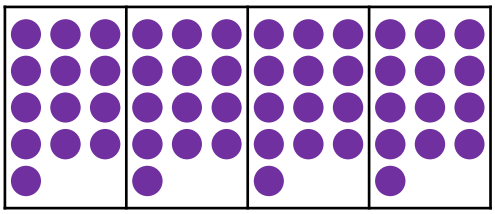
6b. Solve the calculation.

$\frac{7}{9}$ of 54 = ☐



VF

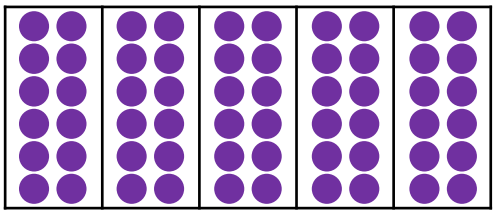
7a. Find three quarters of fifty-two.



$\frac{3}{4}$ of 52 = ☐

VF

7b. Find two fifths of sixty.



$\frac{2}{5}$ of 60 = ☐

VF

8a. Use counters to match the calculation to the answer.

A.	$\frac{3}{5}$ of 35	63
B.	$\frac{9}{10}$ of 70	21
C.	$\frac{3}{7}$ of 56	45
D.	$\frac{5}{8}$ of 72	24

VF

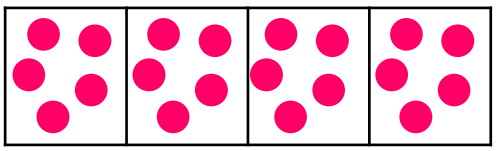
8b. Use counters to match the calculation to the answer.

A.	$\frac{5}{6}$ of 36	24
B.	$\frac{2}{3}$ of 36	33
C.	$\frac{5}{7}$ of 28	30
D.	$\frac{3}{4}$ of 44	20

VF

Fractions of a Quantity

9a. Circle the number that is $\frac{4}{8}$ of the whole number represented below.

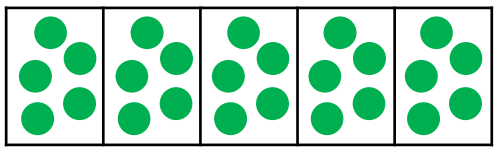


20 40 10

GD VF

Fractions of a Quantity

9b. Circle the number that is $\frac{4}{10}$ of the whole number represented below.



10 25 20

GD VF

10a. Use the first calculation to solve the second.

$\frac{6}{8}$ of 44 = 33

$\frac{6}{8}$ of 880 = ☐

GD VF

10b. Use the first calculation to solve the second.

$\frac{5}{7}$ of 42 = 30

$\frac{5}{7}$ of 840 = ☐

GD VF

11a. Use the related facts to solve both calculations.

If $\frac{1}{4}$ of 40 = ☐

then $\frac{3}{4}$ of 80 = ☐

GD VF

11b. Use the related facts to solve both calculations.

If $\frac{2}{5}$ of 75 = ☐

then $\frac{4}{5}$ of 150 = ☐

GD VF

12a. Use counters to match the calculation to the answer.

A.	$\frac{6}{9}$ of 27	20
B.	$\frac{3}{8}$ of 80	18
C.	$\frac{6}{9}$ of 270	30
D.	$\frac{6}{12}$ of 40	180

GD VF

12b. Use counters to match the calculation to the answer.

A.	$\frac{4}{6}$ of 30	23
B.	$\frac{3}{5}$ of 25	20
C.	$\frac{5}{10}$ of 46	24
D.	$\frac{9}{12}$ of 32	15

GD VF

Varied Fluency
Fractions of a Quantity

Developing

1a. 5

2a. 7

3a. 12

4a. A. 8; B. 6; C. 5; D. 8

Expected

5a. 12

6a. 25

7a. 39

8a. A. 21; B. 63; C. 24; D. 45

Greater Depth

9a. 10

10a. 660

11a. If $\frac{1}{4}$ of 40 = 10, then $\frac{3}{4}$ of 80 = 60.

12a. A. 18; B. 30; C. 180; D. 20

Varied Fluency
Fractions of a Quantity

Developing

1b. 8

2b. 6

3b. 15

4b. A. 5; B. 7; C. 11; D. 14

Expected

5b. 15

6b. 42

7b. 24

8b. A. 30; B. 24; C. 20; D. 33

Greater Depth

9b. 10

10b. 600

11b. If $\frac{2}{5}$ of 75 = 30, then $\frac{4}{5}$ of 150 = 120.

12b. A. 20; B. 15; C. 23; D. 24