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.
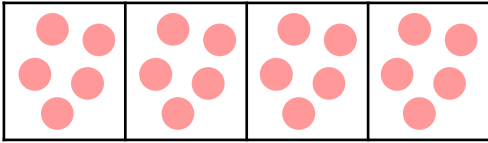**Greater Depth** Questions to support finding fractions of quantities. Involves non-unit fractions and the use of related facts.

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.
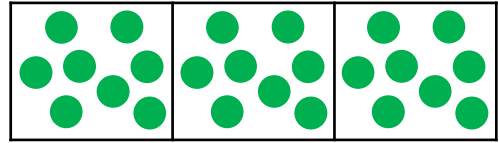

| 20 | 5 | 14 |

VF

2a. Solve the calculation.

$$\frac{1}{3} \text{ of } 21 = \square$$

21		
7	7	7

VF

3a. Find a third of thirty-six.

$$\frac{1}{3} \text{ of } 36 = \square$$

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

VF

Fractions of a Quantity

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

| 13 | 24 | 8 |

VF

2b. Solve the calculation.
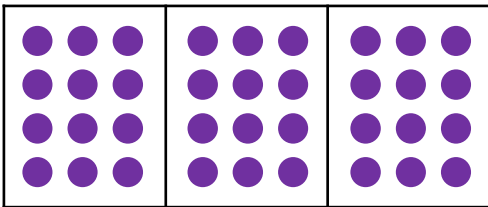
$$\frac{1}{10} \text{ of } 60 = \square$$

60									
6	6	6	6	6	6	6	6	6	6

VF

3b. Find a quarter of sixty.

$$\frac{1}{4} \text{ of } 60 = \square$$

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

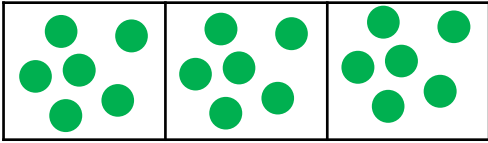C. $\frac{1}{4}$ of 44   14

D. $\frac{1}{2}$ of 28   11

VF

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Varied Fluency – Fractions of a Quantity – Year 4 Developing

Fractions of a Quantity

Fractions of a Quantity

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

12	10	18

E   VF

5b. Circle the number that is $\frac{3}{4}$ of the whole number represented below.
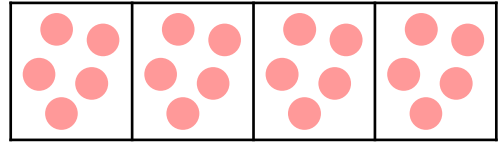
5	20	15

E   VF

6a. Solve the calculation.

$$\frac{5}{6} \text{ of } 30 = \square$$

30					
5	5	5	5	5	5
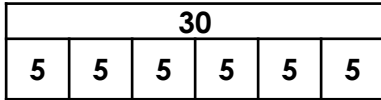
E   VF

6b. Solve the calculation.

$$\frac{7}{9} \text{ of } 54 = \square$$

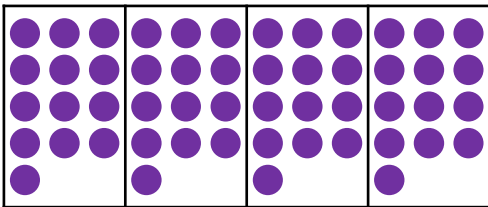| 54								
6	6	6	6	6	6	6	6	6
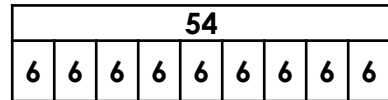
E   VF

7a. Find three quarters of fifty-two.
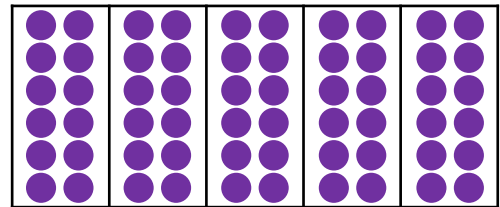
$$\frac{3}{4} \text{ of } 52 = \square$$

E   VF

7b. Find two fifths of sixty.

$$\frac{2}{5} \text{ of } 60 = \square$$

E   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

E   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
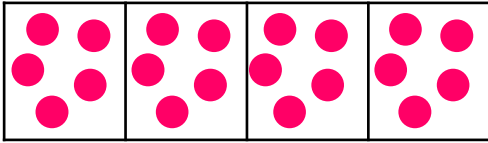
D. $\frac{3}{4}$ of 44   20

E   VF

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Varied Fluency – Fractions of a Quantity – Year 4 Expected

Fractions of a Quantity

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

| 20 | 40 | 10 |

VF

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

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

$\frac{6}{8}$ of 880 = ☐

VF

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

If $\frac{1}{4}$ of 40 = ☐

then $\frac{3}{4}$ of 80 = ☐

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 |

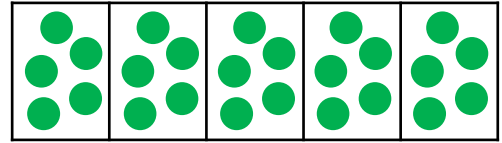D. $\frac{6}{12}$ of 40 | 180 |

VF

Fractions of a Quantity

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

| 10 | 25 | 20 |

VF

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

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

$\frac{5}{7}$ of 840 = ☐

VF

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

If $\frac{2}{5}$ of 75 = ☐

then $\frac{4}{5}$ of 150 = ☐

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 |

VF

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Varied Fluency – Fractions of a Quantity – Year 4 Greater Depth

Varied Fluency
Fractions of a Quantity

Developing

1a. 5

2a. 7

3a. 12

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

Developing

1b. 8

2b. 6

3b. 15

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

Expected

5a. 12

6a. 25

7a. 39

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

Expected

5b. 15

6b. 42

7b. 24

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

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

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

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Varied Fluency – Fractions of a Quantity ANSWERS