# Varied Fluency
# Step 16: Finding the Whole

## National Curriculum Objectives:

**Mathematics Year 6: (6F6)** Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]
**Mathematics Year 6: (6F11)** Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

## Differentiation:

**Developing** Questions to support finding the whole amount from a known fraction. Includes one unit fraction per calculation (using halves, thirds, quarters, fifths and tenths). Each question has pictorial support.
**Expected** Questions to support finding the whole amount from a known fraction. Includes one fraction per calculation (up to twelfths). Some use of bar models.
**Greater Depth** Questions to support finding the whole amount from a known fraction. Includes two fractions per calculation with different denominators (up to twelfths).

## More Year 6 Fractions resources.

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

# Finding the Whole

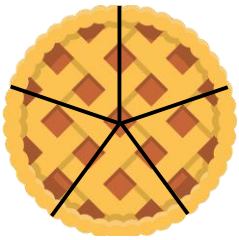
1a. Kyra buys 1 slice of pizza for 60p.

How much does the whole pizza cost?

D VF

# Finding the Whole

1b. Jake buys 1 slice of pie for 70p.



How much does the whole pie cost?

D VF

2a. Ben lost 42 sweets when the bag burst open.


He worked out that he had lost $\frac{1}{5}$ of the sweets he began with.

Circle the number of sweets Ben had before the bag burst open.

220 200 210

D VF

2b. Class 6C gave 75 brownies to the school bake sale.


They worked out that they had given $\frac{1}{3}$ of the brownies they had baked.

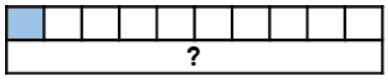
Circle the number of brownies class 6C baked in total.

220 225 235

D VF

3a. Phoebe is completing this statement.

$\frac{1}{10}$ of $\square$ is 32.



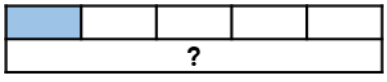

I think the missing number is less than 300.

Is Phoebe correct?

D VF

3b. Dan is completing this statement.

$\frac{1}{5}$ of $\square$ is 85.



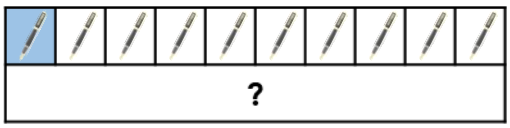

I think the missing number is more than 400.

Is Dan correct?

D VF

4a. A junior school used $\frac{1}{10}$ of their pens in the Autumn term.

They used a total of 95 pens.

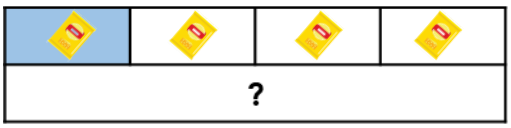



How many pens did they have in stock to begin with?

D VF

4b. A shop sold $\frac{1}{4}$ of their supply of crisps in October.

They sold a total of 79 packets of crisps.

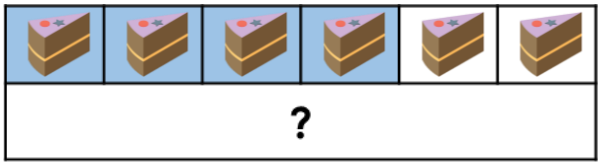



How many packets of crisps did the shop have to begin with?

D VF

## Finding the Whole

5a. Evie buys 4 slices of cake for £2.40.

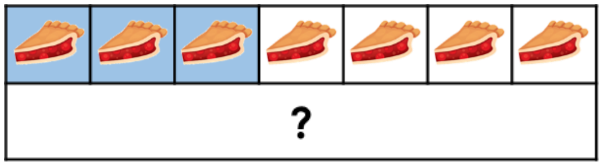



How much does the whole cake cost?

VF

## Finding the Whole

5b. Ali buys 3 pieces of pie for £2.70




How much does the whole pie cost?

VF

6a. A toy shop sold 210 train sets during a sale.

They worked out that they had sold $\frac{3}{8}$ of the train sets they began with.

Circle the number of train sets they had before the sale.

520 540 560

VF

6b. A farmer lost 600 tomatoes when they were destroyed in a flood.

She worked out that she had lost $\frac{5}{6}$ of the tomatoes she began with.

Circle the number of tomatoes she had before the flood.

660 720 960

VF

7a. Tom is completing this statement.

$\frac{7}{12}$ of $\square$ is 560.

I think the missing number is more than 700.

Is Tom correct?

VF

7b. Amy is completing this statement.

$\frac{2}{7}$ of $\square$ is 240.

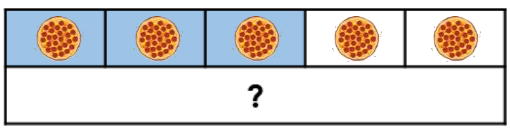
I think the missing number is less than 800.

Is Amy correct?

VF

8a. A restaurant sold $\frac{3}{5}$ of their pizza stock in January.

They sold a total of 330 pizzas.

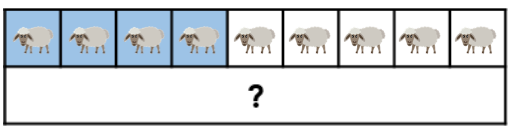



How many pizzas did they have in stock to begin with?

VF

8b. A farm bought $\frac{4}{9}$ of their neighbours lambs in spring.

They bought a total of 320 lambs.




How many lambs did the farm have to begin with?

VF

## Finding the Whole

9a. Kiran buys $\frac{3}{8}$ of a pie.

Her friend Sarah buys $\frac{2}{4}$ of the pie.

Altogether, they pay £5.60 for their slices.

How much does the whole pie cost?

GD VF

10a. A theatre sold 990 tickets altogether.

They worked out that they had sold $\frac{4}{6}$ of the tickets on Saturday.

They sold another $\frac{3}{12}$ of the tickets on Sunday.

Circle the number of tickets the theatre had before they sold any tickets.

990 1,080 1,800

GD VF

11a. Leah is completing this statement.

$\frac{4}{6} + \frac{2}{9}$ of $\square$ is 640.

I think the missing number is between 600 and 700.

Is Leah correct?

GD VF

12a. A shop sold $\frac{4}{10}$ of their biscuit stock in September.

They then sold a further $\frac{2}{4}$ of their supply in October.

They sold a total of 1,080 packets of biscuits.

How many packets of biscuits did they have in stock to begin with?

GD VF

## Finding the Whole

9b. Dan buys $\frac{2}{3}$ of a pizza.

His brother Seth buys $\frac{2}{9}$ of the pizza.

Altogether, they pay £7.20 for their slices.

How much does the whole pizza cost?

GD VF

10b. James drank 1,210ml of juice altogether.

He drank $\frac{3}{4}$ of a bottle of apple juice on Monday.

He drank another $\frac{2}{12}$ of it on Tuesday.

Circle the amount of juice in the bottle before James drank any.

1,240 1,320 1,440

GD VF

11b. George is completing this statement.

$\frac{2}{8} + \frac{3}{12}$ of $\square$ is 550.

I think the missing number is between 1,000 and 1,200.

Is George correct?

GD VF

12b. A farmer sold $\frac{3}{9}$ of his potato crop on Saturday.

He then sold a further $\frac{3}{6}$ of his crop on Sunday.

He sold a total of 600 potatoes.

How many potatoes did he have to begin with?

GD VF

## Varied Fluency
## Finding the Whole

### Developing
1a. £2.40
2a. 210 sweets
3a. Phoebe is incorrect, it equals 320.
4a. 950 pens

### Expected
5a. £3.60
5a. 560 train sets
7a. Tom is correct, it equals 960.
8a. 550 pizzas

### Greater Depth
9a. £6.40
10a. 1,080 tickets
11a. Leah is incorrect, it equals 720.
12a. 1,200 packets of biscuits

## Varied Fluency
## Finding the Whole

### Developing
1b. £3.50
2b. 225 brownies
3b. Dan is correct, it equals 425.
4b. 316 packets of crisps

### Expected
4b. £6.30
5b. 720 tomatoes
7b. Amy is incorrect, it equals 840.
8b. 720 lambs

### Greater Depth
9b. £8.10
10b. 1,320ml
11b. George is correct, it equals 1,100.
12b. 720 potatoes