

# Varied Fluency

## Step 2: Ratio And Fractions

### National Curriculum Objectives:

Mathematics Year 6: (6R1) [Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts](#)

Mathematics Year 6: (6R4) [Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples](#)

### Differentiation:

**Developing** Questions to support relating ratio and fractions. Comparing 2 groups of objects, organised in a linear pattern or grouped together.

**Expected** Questions to support relating ratio and fractions. Comparing 2 groups of objects out of two or three groups, organised in a linear pattern or grouped together.

**Greater Depth** Questions to support relating ratio and fractions. Comparing 3 groups of objects which are arranged randomly.

More [Year 6 Ratio](#) resources.

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

# Ratio And Fractions

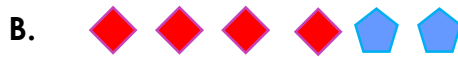
# Ratio And Fractions

1a. Match the fraction of squares to the correct set of objects.

$\frac{4}{6}$



$\frac{3}{6}$



$\frac{2}{5}$



VF

1b. Match the fraction of pentagons to the correct set of objects.

$\frac{2}{5}$



$\frac{4}{6}$



$\frac{1}{4}$



VF

2a. True or false? If there are 2 oranges for every 4 apples,  $\frac{4}{6}$  of the fruit are apples.



VF

2b. True or false? If there are 3 pears for every 2 grapes,  $\frac{3}{5}$  of the fruit are grapes.



VF

3a. Complete the sentence below if  $\frac{3}{5}$  are pentagons and  $\frac{2}{5}$  are circles.

There are \_\_\_\_\_ pentagons for every \_\_\_\_\_ circles.



VF

3b. Complete the sentence below if  $\frac{4}{6}$  are circles and  $\frac{2}{6}$  are squares.

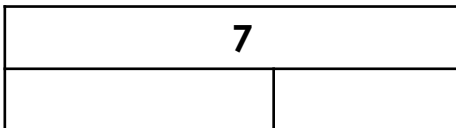
There are \_\_\_\_\_ circles for every \_\_\_\_\_ squares.



VF

4a. Use the statement below to complete the bar model.

There are 4 squares for every 3 circles.



Write a fraction showing each quantity.

$\square = \frac{\square}{7}$

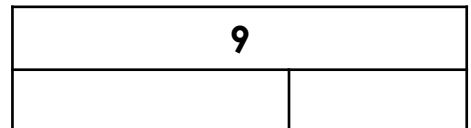
$\bullet = \frac{\square}{7}$



VF

4b. Use the statement below to complete the bar model.

There are 6 circles for every 3 squares.



Write a fraction showing each quantity.

$\bullet = \frac{\square}{9}$

$\square = \frac{\square}{9}$



VF

# Ratio And Fractions

# Ratio And Fractions

5a. Match the fraction of triangles to the correct set of objects.

$\frac{3}{7}$



$\frac{7}{10}$



$\frac{2}{6}$



VF

5b. Match the fraction of circles to the correct set of objects.

$\frac{3}{8}$



$\frac{4}{7}$



$\frac{2}{5}$



VF

6a. True or false?

If there are 2 oranges for every 3 apples,  $\frac{3}{5}$  of the fruit are oranges.



VF

6b. True or false?

If there are 4 bananas for every 2 grapes,  $\frac{2}{5}$  of the fruit are grapes.



VF

7a. Complete the sentence below if  $\frac{2}{7}$  are pentagons and  $\frac{4}{7}$  are squares.

There are \_\_\_\_ squares for every \_\_\_\_ pentagons.



VF

7b. Complete the sentence below if  $\frac{3}{8}$  are circles and  $\frac{2}{8}$  are pentagons.

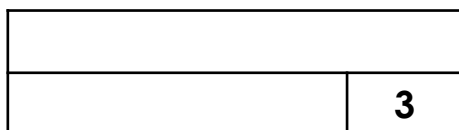
There are \_\_\_\_ circles for every \_\_\_\_ pentagons.



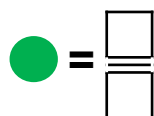
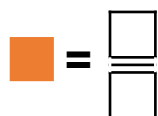
VF

8a. Use the statement below to complete the bar model.

There are 3 squares for every 5 circles.



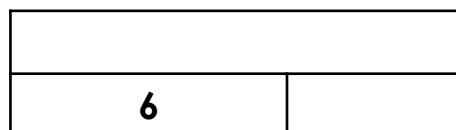
Write a fraction showing each quantity.



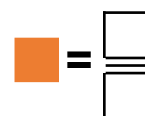
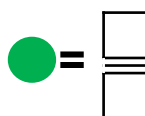
VF

8b. Use the statement below to complete the bar model.

There are 4 circles for every 6 squares.



Write a fraction showing each quantity.



VF

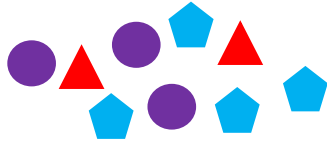
# Ratio And Fractions

# Ratio And Fractions

9a. Match the fraction of circles to the correct set of objects.

$$\frac{2}{3}$$

A.



$$\frac{1}{3}$$

B.



$$\frac{1}{4}$$

C.

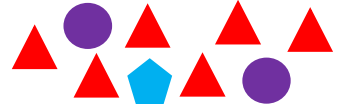


VF

9b. Match the fraction of triangles to the correct set of objects.

$$\frac{1}{2}$$

A.



$$\frac{1}{3}$$

B.



$$\frac{2}{3}$$

C.



VF

10a. True or false?

If there are 6 pears and 4 apples for every 5 lemons,  $\frac{2}{5}$  of the fruit are pears.



VF

10b. True or false?

If there are 10 oranges and 6 melons for every 2 plums,  $\frac{1}{3}$  of the fruit are plums.



VF

11a. Complete the sentence below if  $\frac{2}{11}$  are pentagons,  $\frac{\square}{\square}$  are squares and  $\frac{3}{11}$  are circles.

There are \_\_\_\_\_ pentagons and \_\_\_\_\_ circles for every \_\_\_\_\_ squares.



VF

11b. Complete the sentence below if  $\frac{4}{13}$  are circles,  $\frac{\square}{\square}$  are pentagons and  $\frac{4}{13}$  are triangles.

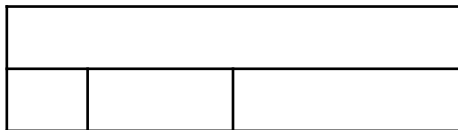
There are \_\_\_\_\_ triangles and \_\_\_\_\_ circles for every \_\_\_\_\_ pentagons.



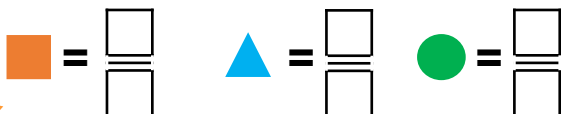
VF

12a. Use the statement below to complete the bar model.

There are 6 squares and 4 triangles for every 2 circles.



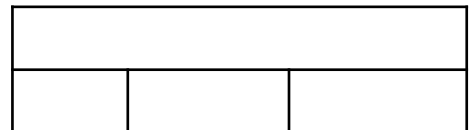
Show each fraction in its simplest form.



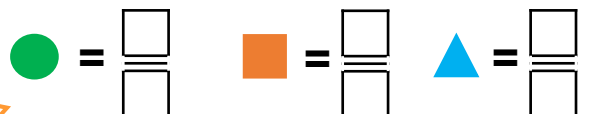
VF

12b. Use the statement below to complete the bar model.

There are 8 circles for every 5 squares and 7 triangles.



Show each fraction in its simplest form.



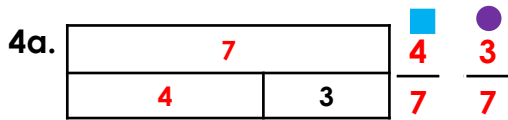
## Varied Fluency Ratio And Fractions

### Developing

1a.  $\frac{4}{6} = B$ ;  $\frac{3}{6} = C$ ;  $\frac{2}{5} = A$

2a. True

3a. There are 3 pentagons for every 2 circles.

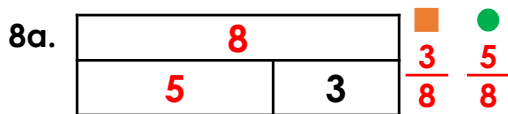


### Expected

5a.  $\frac{3}{7} = B$ ;  $\frac{7}{10} = C$ ;  $\frac{2}{6} = A$

6a. False, the fraction of oranges is  $\frac{2}{5}$ .

7a. There are 4 squares for every 2 pentagons; alternatively, there are 2 squares for every pentagon.

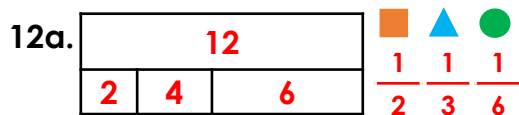


### Greater Depth

9a.  $\frac{2}{3} = C$ ;  $\frac{1}{3} = A$ ;  $\frac{1}{4} = B$

10a. True

11a.  $\frac{6}{11}$  are squares. There are 2 pentagons and 3 circles for every 6 squares.



## Varied Fluency Ratio And Fractions

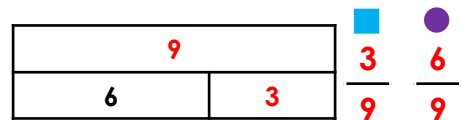
### Developing

1b.  $\frac{2}{5} = C$ ;  $\frac{4}{6} = A$ ;  $\frac{1}{4} = B$

2b. False, the fraction of grapes is  $\frac{2}{5}$ .

3b. There are 4 circles for every 2 squares.

4b.

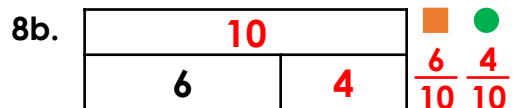


### Expected

5b.  $\frac{3}{8} = C$ ;  $\frac{4}{7} = A$ ;  $\frac{2}{5} = B$

6b. False, the fraction of grapes is  $\frac{2}{6}$ .

7b. There are 3 circles for every 2 pentagons.



### Greater Depth

9b.  $\frac{1}{2} = B$ ;  $\frac{1}{3} = C$ ;  $\frac{2}{3} = A$

10b. False, the fraction of plums is  $\frac{1}{9}$ .

11b.  $\frac{5}{13}$  are pentagons. There are 4 triangles and 4 circles for every 5 pentagons.

