

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.

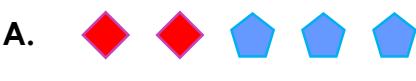
More [Year 6 Ratio](#) resources.

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

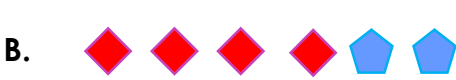
Ratio And Fractions

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

4/6



3/6



2/5



VF

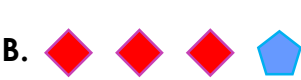
Ratio And Fractions

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

2/5



4/6



1/4



VF

2a. True or false? If there are 2 oranges for every 4 apples, 4/6 of the fruit are apples.



VF

2b. True or false? If there are 3 pears for every 2 grapes, 3/5 of the fruit are grapes.



VF

3a. Complete the sentence below if 3/5 are pentagons and 2/5 are circles.

There are _____ pentagons for every _____ circles.



VF

3b. Complete the sentence below if 4/6 are circles and 2/6 are diamonds.

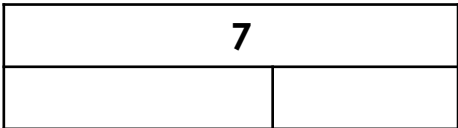
There are _____ circles for every _____ diamonds.



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.

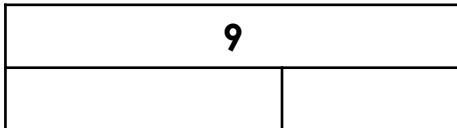
 = $\frac{\square}{7}$  = $\frac{\square}{7}$



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.

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



VF

Ratio And Fractions

Ratio And Fractions

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

$$\frac{3}{7}$$

A. 

$$\frac{7}{10}$$

B. 

$$\frac{2}{6}$$

C. 



VF

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

$$\frac{3}{8}$$

A. 

$$\frac{4}{7}$$

B. 

$$\frac{2}{5}$$

C. 



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 diamonds.

There are ____ diamonds for every ____ pentagons.



VF

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

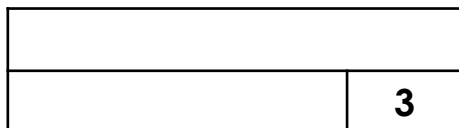
There are ____ circles for every ____ pentagons.



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.

$$\text{orange square} = \frac{\square}{\square}$$

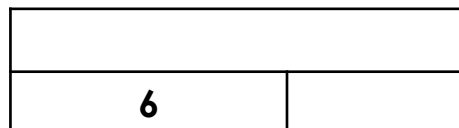
$$\text{green circle} = \frac{\square}{\square}$$



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.

$$\text{green circle} = \frac{\square}{\square}$$

$$\text{orange square} = \frac{\square}{\square}$$



VF

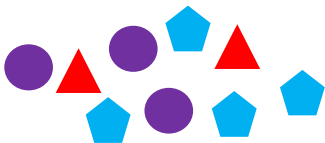
Ratio And Fractions

Ratio And Fractions

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

2/3

A.



1/3

B.



1/4

C.

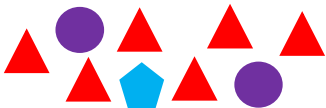


VF

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

1/2

A.



1/3

B.



2/3

C.



VF

10a. True or false?

If there are 6 pears and 4 apples for every 5 lemons, 2/5 of the fruit are pears.



VF

10b. True or false?

If there are 10 oranges and 6 melons for every 2 plums, 1/3 of the fruit are plums.



VF

11a. Complete the sentence below if 2/11 are pentagons, 3/11 are diamonds and 6/11 are circles.

There are ____ pentagons and ____ circles for every ____ diamonds.



VF

11b. Complete the sentence below if 4/13 are circles, 5/13 are pentagons and 4/13 are triangles.

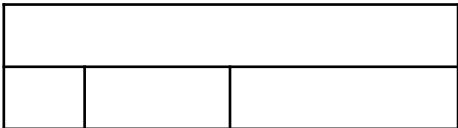
There are ____ triangles and ____ circles for every ____ pentagons.



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.

Square = 2/3

Triangle = 2/3

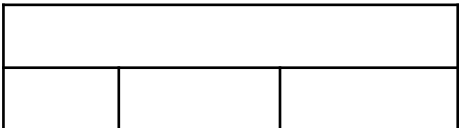
Circle = 1/3



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.

Circle = 8/12

Square = 5/12

Triangle = 7/12



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.

4a.

7			
4	3	$\frac{4}{7}$	$\frac{3}{7}$



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 diamonds for every 2 pentagons; alternatively, there are 2 diamonds for every pentagon.

8a.

8			
5	3	$\frac{3}{8}$	$\frac{5}{8}$



Greater Depth

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

10a. True

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

12a.

12					
2	4	6	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{6}$

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 diamonds.

4b.

9			
6	3	$\frac{3}{9}$	$\frac{6}{9}$



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.

8b.

10			
6	4	$\frac{6}{10}$	$\frac{4}{10}$




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.

12b.

20					
5	7	8	$\frac{1}{4}$	$\frac{7}{20}$	$\frac{2}{5}$