

# Varied Fluency

## Step 2: Decimals as Fractions 1

### National Curriculum Objectives:

Mathematics Year 5: (5F6a) [Read and write decimal numbers as fractions \[for example,  \$0.71 = 71/100\$ \]](#)

Mathematics Year 5: (5F6b) [Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents](#)

Mathematics Year 5: (5F12) [Solve problems which require knowing percentage and decimal equivalents of  \$1/2\$ ,  \$1/4\$ ,  \$1/5\$ ,  \$2/5\$ ,  \$4/5\$  and those fractions with a denominator of a multiple of 10 or 25](#)

### Differentiation:

**Developing** Questions to support converting fractions and decimals. Includes tenths and hundredths only.

**Expected** Questions to support converting fractions and decimals. Includes tenths, hundredths, half and quarters.

**Greater Depth** Questions to support converting fractions and decimals. Includes hundredths, half, quarters, fifths and denominators of 25 and 50.

More [Year 5 Decimals and Percentages](#) resources.

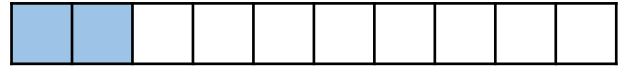
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# Decimals as Fractions 1

# Decimals as Fractions 1

1a. Circle the fraction and decimal which match the picture.

1b. Circle the fraction and decimal which match the picture.



0.3

$\frac{30}{100}$

0.03

0.02

$\frac{20}{100}$

0.2



VF



VF

2a. Match the fractions to their decimal equivalents.

2b. Match the fractions to their decimal equivalents.

A.  $\frac{40}{100}$                       0.07

A.  $\frac{9}{100}$                               0.8

B.  $\frac{6}{10}$                                 0.4

B.  $\frac{8}{10}$                                 0.6

C.  $\frac{7}{100}$                                0.6

C.  $\frac{60}{100}$                               0.09



VF



VF

3a. Complete the table below.

3b. Complete the table below.

Fractions	Decimals
$\frac{90}{100}$	
	0.5
$\frac{8}{10}$	

Fractions	Decimals
$\frac{40}{100}$	
	0.02
$\frac{7}{10}$	



VF



VF

4a. True or false?

4b. True or false?

$$\frac{2}{100} = 0.2$$

$$\frac{3}{100} = 0.03$$



VF



VF

## Decimals as Fractions 1

5a. Circle the fraction and decimal which match the picture.



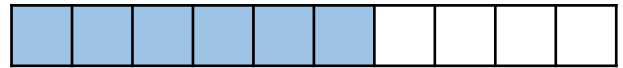
- 0.07    
   $\frac{70}{100}$     
  0.7    
   $\frac{7}{100}$



VF

## Decimals as Fractions 1

5b. Circle the fraction and decimal which match the picture.



- 0.6    
   $\frac{6}{100}$     
  0.06    
   $\frac{60}{100}$



VF

6a. Match the fractions to their decimal equivalents.

A.  $\frac{20}{100}$                       0.05

B.  $\frac{1}{2}$                               0.2

C.  $\frac{5}{100}$                             0.5



VF

6b. Match the fractions to their decimal equivalents.

A.  $\frac{4}{100}$                               0.04

B.  $\frac{1}{4}$                                     0.4

C.  $\frac{40}{100}$                             0.25



VF

7a. Complete the table below.

Fractions	Decimals
$\frac{75}{100}$	
	0.05
$\frac{9}{10}$	



VF

7b. Complete the table below.

Fractions	Decimals
$\frac{50}{100}$	
	0.09
$\frac{3}{4}$	



VF

8a. True or false?

$$\frac{1}{4} = 0.4$$



VF

8b. True or false?

$$\frac{1}{2} = 0.2$$



VF

## Decimals as Fractions 1

9a. Circle the fraction and decimal which match the picture.



- 0.7      $\frac{75}{100}$      0.75      $\frac{7}{100}$



VF

## Decimals as Fractions 1

9b. Circle the fraction and decimal which match the picture.



- 0.25      $\frac{20}{100}$      0.2      $\frac{25}{100}$



VF

10a. Match the fractions to their decimal equivalents.

- A.  $\frac{4}{5}$      0.48  
 B.  $\frac{12}{25}$      0.4  
 C.  $\frac{20}{50}$      0.8



VF

10b. Match the fractions to their decimal equivalents.

- A.  $\frac{40}{50}$      0.6  
 B.  $\frac{3}{5}$      0.44  
 C.  $\frac{11}{25}$      0.8



VF

11a. Complete the table below.

Fractions	Decimals
$\frac{7}{25}$	
	0.25
$\frac{25}{50}$	



VF

11b. Complete the table below.

Fractions	Decimals
$\frac{15}{50}$	
	0.75
$\frac{1}{5}$	



VF

12a. True or false?

$$\frac{2}{5} = 0.25$$



VF

12b. True or false?

$$\frac{9}{25} = 0.9$$



VF

## Varied Fluency Decimals as Fractions 1

### Developing

1a.  $\frac{30}{100}$ , 0.3

2a.  $A = 0.4$ ,  $B = 0.6$ ,  $C = 0.07$

3a. 0.9,  $\frac{5}{10}$ , 0.8

4a. False, the correct answer is:  $\frac{2}{100} = 0.02$

### Expected

5a.  $\frac{70}{100}$ , 0.7

6a.  $A = 0.2$ ,  $B = 0.5$ ,  $C = 0.05$

7a. 0.75,  $\frac{5}{100}$ , 0.9

8a. False, the correct answer is:  $\frac{1}{4} = 0.25$

### Greater Depth

11a.  $\frac{75}{100}$ , 0.75

12a.  $A = 0.8$ ,  $B = 0.48$ ,  $C = 0.4$

13a. 0.28,  $\frac{25}{100}$  or  $\frac{1}{4}$ , 0.5

14a. False, the correct answer is:  $\frac{2}{5} = 0.4$

## Varied Fluency Decimals as Fractions 1

### Developing

1b.  $\frac{20}{100}$ , 0.2

2b.  $A = 0.09$ ,  $B = 0.8$ ,  $C = 0.6$

3b. 0.4,  $\frac{2}{100}$ , 0.7

4b. True

### Expected

5b.  $\frac{60}{100}$ , 0.6

6b.  $A = 0.04$ ,  $B = 0.25$ ,  $C = 0.4$

7b. 0.5,  $\frac{9}{100}$ , 0.75

8b. False, the correct answer is:  $\frac{1}{2} = 0.5$

### Greater Depth

11b.  $\frac{25}{100}$ , 0.25

12b.  $A = 0.8$ ,  $B = 0.6$ ,  $C = 0.44$

13b. 0.3,  $\frac{75}{100}$  or  $\frac{3}{4}$ , 0.2

14b. False the correct answer is:  $\frac{9}{25} = 0.36$