

# Varied Fluency

## Step 3: Decimals as Fractions 2

### 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](#)

### Differentiation:

**Developing** Questions to support converting fractions and decimals using numbers  $<1$  that are multiples of 5 e.g. 0.35. Includes tenths and hundredths only.

**Expected** Questions to support converting fractions and decimals e.g. 0.07 and where a decimal may be  $>1$ . Includes tenths and hundredths only with some expanded decimal and fraction forms including the use of 0 as a place holder.

**Greater Depth** Questions to support converting fractions and decimals e.g. 0.07 with decimals  $>1$ . Includes tenths and hundredths only with expanded decimal and fraction forms including the use of 0 as a place holder.

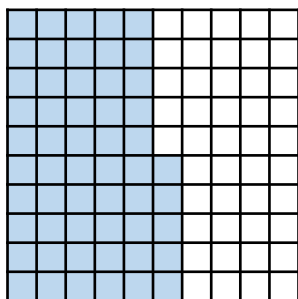
More [Year 5 Decimals and Percentages](#) resources.

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

## Decimals as Fractions 2

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1a. Circle the fraction that is represented by the image below.

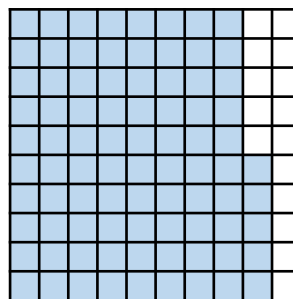


- A.  $\frac{65}{100}$  B.  $\frac{55}{10}$  C.  $\frac{55}{100}$



VF

1b. Circle the fraction that is represented by the image below.

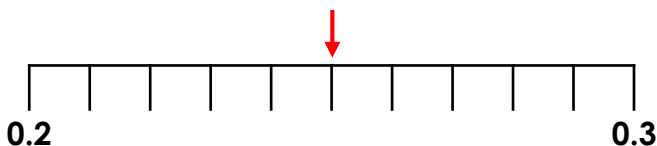


- A.  $\frac{85}{10}$  B.  $\frac{85}{100}$  C.  $\frac{95}{100}$



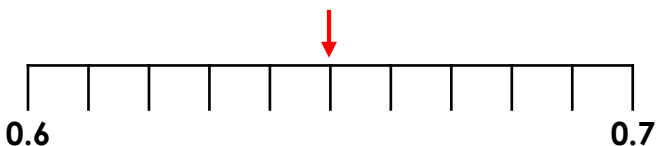
VF

2a. True or false? The arrow is pointing to  $\frac{35}{100}$  on the number line.



VF

2b. True or false? The arrow is pointing to  $\frac{65}{100}$  on the number line.



VF

3a. Match the decimal number to the equivalent fraction.

0.5

$\frac{75}{100}$

0.75

$\frac{35}{100}$

0.35

$\frac{5}{10}$



VF

3b. Match the decimal number to the equivalent fraction.

0.4

$\frac{55}{100}$

0.9

$\frac{4}{10}$

0.55

$\frac{9}{10}$



VF

4a. Convert these decimals to fractions and fractions to decimals.

A. 0.95

B.  $\frac{15}{100}$

C. 0.3

D.  $\frac{6}{10}$



VF

4b. Convert these decimals to fractions and fractions to decimals.

A. 0.45

B.  $\frac{2}{10}$

C. 0.8

D.  $\frac{25}{100}$

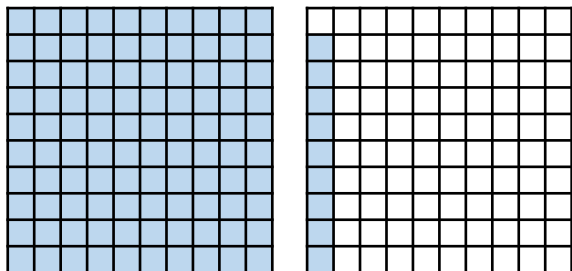


VF

## Decimals as Fractions 2

## Decimals as Fractions 2

5a. Circle the fraction that is represented by the image below.

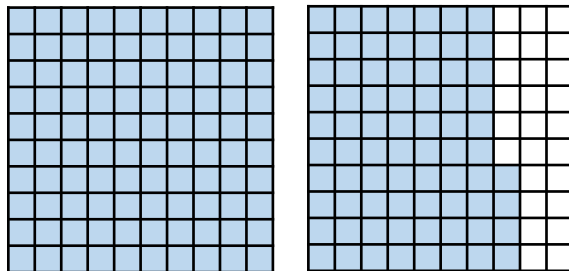


- A.  $1 \frac{91}{100}$    B.  $1 \frac{9}{100}$    C.  $1 \frac{9}{10}$



VF

5b. Circle the fraction that is represented by the image below.

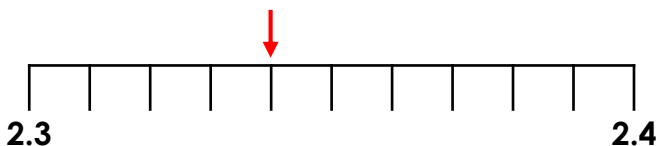


- A.  $1 \frac{26}{100}$    B.  $1 \frac{74}{100}$    C.  $1 \frac{74}{10}$



VF

6a. True or false? The arrow is pointing to  $2 \frac{34}{100}$  on the number line.



VF

6b. True or false? The arrow is pointing to  $5 \frac{47}{100}$  on the number line.



VF

7a. Match the decimal number to the equivalent expanded fraction.

2.37

$$2 + \frac{7}{10} + \frac{3}{100}$$

2.73

$$3 + \frac{7}{10} + \frac{2}{100}$$

3.72

$$2 + \frac{3}{10} + \frac{7}{100}$$



VF

7b. Match the decimal number to the equivalent expanded fraction.

5.21

$$5 + \frac{1}{10} + \frac{2}{100}$$

5.15

$$5 + \frac{2}{10} + \frac{1}{100}$$

5.12

$$5 + \frac{1}{10} + \frac{5}{100}$$



VF

8a. Convert these decimals to expanded fractions and fractions to expanded decimals.

A. 4.36

B.  $5 \frac{8}{100}$

C. 3.91

D.  $7 \frac{6}{10}$



VF

8b. Convert these decimals to expanded fractions and fractions to expanded decimals.

A. 7.16

B.  $3 \frac{6}{100}$

C. 2.98

D.  $8 \frac{3}{10}$

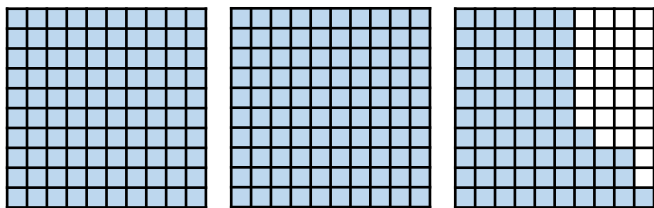


VF

## Decimals as Fractions 2

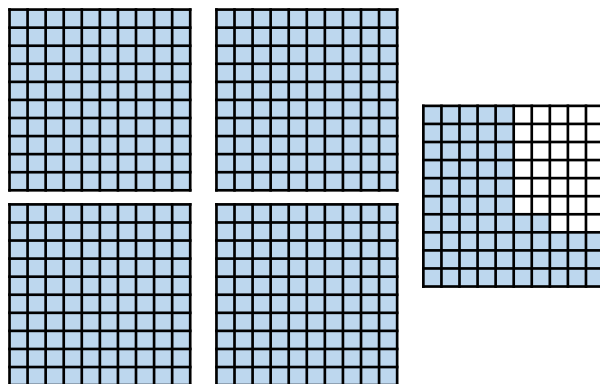
## Decimals as Fractions 2

9a. Write the fraction that is represented by the image below.



VF

9b. Write the fraction that is represented by the image below.



VF

10a. True or false? The arrow is pointing to  $7 + \frac{1}{10} + \frac{70}{100}$  on the number line.



VF

10b. True or false? The arrow is pointing to  $9 + \frac{2}{10} + \frac{3}{100}$  on the number line.



VF

11a. Match the expanded decimal number to the equivalent expanded fraction.

$$6 + 0.5 + 0.04$$

$$6 + \frac{4}{10} + \frac{4}{100}$$

$$6 + 0.4 + 0.05$$

$$6 + \frac{5}{10} + \frac{4}{100}$$

$$6 + 0.4 + 0.04$$

$$6 + \frac{4}{10} + \frac{5}{100}$$



VF

11b. Match the expanded decimal number to the equivalent expanded fraction.

$$9 + 0.3 + 0.09$$

$$9 + \frac{9}{10} + \frac{3}{100}$$

$$9 + 0.9 + 0.03$$

$$9 + \frac{6}{10} + \frac{9}{100}$$

$$9 + 0.6 + 0.09$$

$$9 + \frac{3}{10} + \frac{9}{100}$$



VF

12a. Convert these expanded decimals to expanded fractions and expanded fractions to expanded decimals.

A.  $9 + 0.08$

B.  $5 + \frac{7}{100}$

C.  $7 + 0.4 + 0.06$

D.  $5 + \frac{7}{10} + \frac{9}{100}$



VF

12b. Convert these expanded decimals to expanded fractions and expanded fractions to expanded decimals.

A.  $3 + 0.7 + 0.05$

B.  $4 + \frac{9}{10} + \frac{1}{100}$

C.  $8 + 0.04$

D.  $2 + \frac{1}{100}$



VF

## Varied Fluency Decimals as Fractions 2

### Developing

1a. **C**

2a. **False.** The arrow is pointing to  $\frac{25}{100}$ .

3a.  $0.5 = \frac{5}{10}$ ,  $0.75 = \frac{75}{100}$ ,  $0.35 = \frac{35}{100}$

4a.  $A = \frac{95}{100}$ ,  $B = 0.15$ ,  $C = \frac{3}{10}$ ,  $D = 0.6$

### Expected

5a. **B**

6a. **True**

7a.  $2.37 = 2 + \frac{3}{10} + \frac{7}{100}$ ,

$2.73 = 2 + \frac{7}{10} + \frac{3}{100}$ ,  $3.72 = 3 + \frac{7}{10} + \frac{2}{100}$

8a.  $A = 4 + \frac{3}{10} + \frac{6}{100}$ ,  $B = 5 + 0.08$

$C = 3 + \frac{9}{10} + \frac{1}{100}$ ,  $B = 7 + 0.6$

### Greater Depth

9a.  $2 \frac{71}{100}$

10a. **False.** The arrow is pointing to

$7 + \frac{1}{10} + \frac{7}{100}$ .

11a.  $6 + 0.5 + 0.04 = 6 + \frac{5}{10} + \frac{4}{100}$ ,

$6 + 0.4 + 0.05 = 6 + \frac{4}{10} + \frac{5}{100}$ ,

$6 + 0.4 + 0.04 = 6 + \frac{4}{10} + \frac{4}{100}$

12a.  $A = 9 + \frac{8}{100}$ ,  $B = 5 + 0.07$ ,

$C = 7 + \frac{4}{10} + \frac{6}{100}$ ,  $D = 5 + 0.7 + 0.09$

## Varied Fluency Decimals as Fractions 2

### Developing

1b. **B**

2b. **True**

3b.  $0.4 = \frac{4}{10}$ ,  $0.9 = \frac{9}{10}$ ,  $0.55 = \frac{55}{100}$

4b.  $A = \frac{45}{100}$ ,  $B = 0.2$ ,  $C = \frac{8}{10}$ ,  $D = 0.25$

### Expected

5b. **C**

6b. **False.** The arrow is pointing to  $5 \frac{48}{100}$ .

7b.  $5.21 = 5 + \frac{2}{10} + \frac{1}{100}$ ,

$5.15 = 5 + \frac{1}{10} + \frac{5}{100}$ ,  $5.12 = 5 + \frac{1}{10} + \frac{2}{100}$

8b.  $A = 7 + \frac{1}{10} + \frac{6}{100}$ ,  $B = 3 + 0.06$

$C = 2 + \frac{9}{10} + \frac{8}{100}$ ,  $B = 8 + 0.3$

### Greater Depth

9b.  $3 \frac{67}{100}$

10b. **True**

11b.  $9 + 0.3 + 0.09 = 9 + \frac{3}{10} + \frac{9}{100}$ ,

$9 + 0.9 + 0.03 = 9 + \frac{9}{10} + \frac{3}{100}$ ,

$9 + 0.6 + 0.09 = 9 + \frac{6}{10} + \frac{9}{100}$

12b.  $A = 3 + \frac{7}{10} + \frac{5}{100}$ ,  $B = 4 + 0.9 + 0.01$ ,

$C = 8 + \frac{4}{100}$ ,  $D = 2 + 0.01$