

# Reasoning and Problem Solving

## Step 9: Hundredths

### National Curriculum Objectives:

Mathematics Year 4: (4F1) [Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten](#)

Mathematics Year 4: (4F6b) [Recognise and write decimal equivalents of any number of tenths or hundredths](#)

### Differentiation:

Questions 1, 4 and 7 (Reasoning)

**Developing** Identify and explain errors when counting forwards or backwards in one hundredths.

**Expected** Identify and explain errors when counting forwards or backwards in one hundredths and including equivalent tenths.

**Greater Depth** Identify and explain errors when counting forwards or backwards in intervals greater than one hundredth and including equivalent tenths.

Questions 2, 5 and 8 (Problem Solving)

**Developing** Match a decimal partitioned into hundredths and some tenths to the correct fraction.

**Expected** Match a decimal partitioned into tenths and hundredths to the correct fraction. Includes some unconventional partitioning.

**Greater Depth** Match a decimal partitioned into ones, tenths and hundredths to the correct fraction. Includes unconventional partitioning.

Questions 3, 6 and 9 (Problem Solving)

**Developing** Calculate how many more hundredths will make one whole.

**Expected** Calculate how many more tenths and hundredths will make one whole.

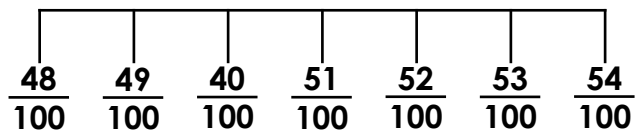
**Greater Depth** Calculate how many more tenths and hundredths will make one whole. Includes unconventional partitioning.

More [Year 3 and Year 4 Fractions and Decimals](#) resources.

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

## Hundredths

1a. Stan has completed this section of a number line below.



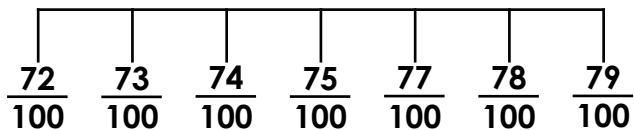
Is he correct? Explain how you know.



4 R

## Hundredths

1b. Mel has completed this section of a number line below.



Is she correct? Explain how you know.



4 R

2a. Match the child to the correct number.

Don has 20 hundredths and 7 hundredths.

Mia has 2 tenths and 5 hundredths.

Ken has 20 hundredths and 9 hundredths.

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

B.  $\frac{29}{100}$

C.  $\frac{27}{100}$



4 PS

2b. Match the child to the correct number.

Kai has 30 hundredths and 5 hundredths.

Sue has 30 hundredths and 3 hundredths.

Len has 5 tenths and 3 hundredths.

A.  $\frac{53}{100}$

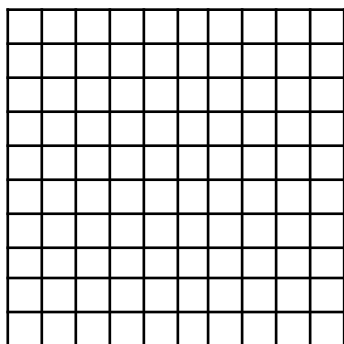
B.  $\frac{35}{100}$

C.  $\frac{33}{100}$



4 PS

3a. You have 85 hundredths already. How many more hundredths do you need to make one whole?

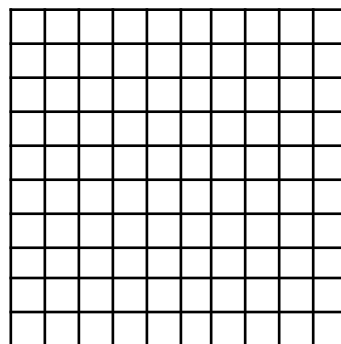


Record your answer as a fraction.



4 PS

3b. You have 65 hundredths already. How many more hundredths do you need to make one whole?



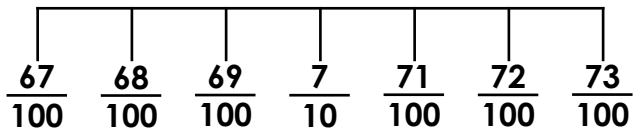
Record your answer as a fraction.



4 PS

## Hundredths

4a. Ollie has completed this section of a number line below.



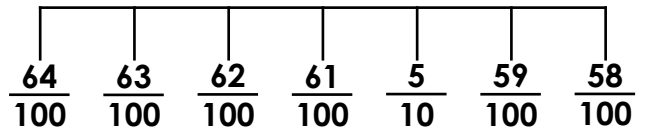
Is he correct? Explain how you know.



4 R

## Hundredths

4b. Cally has completed this section of a number line below.



Is she correct? Explain how you know.



4 R

5a. Match the child to the correct number.

Sasha has 3 tenths and 7 hundredths.

Tom has 4 tenths and 13 hundredths.

Lottie has 6 tenths and 8 hundredths.

A.  $\frac{68}{100}$

B.  $\frac{37}{100}$

C.  $\frac{53}{100}$



4 PS

5b. Match the child to the correct number.

Tara has 9 tenths and 2 hundredths.

Rick has 6 tenths and 9 hundredths.

Maggie has 8 tenths and 14 hundredths.

A.  $\frac{69}{100}$

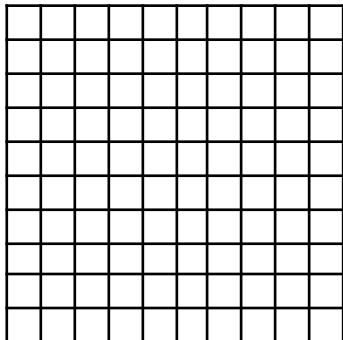
B.  $\frac{94}{100}$

C.  $\frac{92}{100}$



4 PS

6a. You have 4 tenths and 3 hundredths already. How many more tenths and hundredths do you need to make one whole?

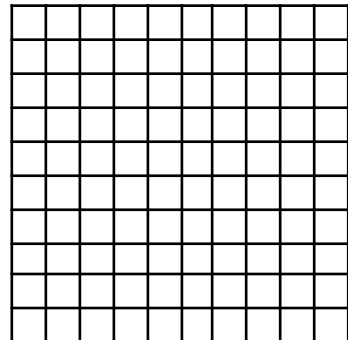


Record your answer as a fraction.



4 PS

6b. You have 6 tenths and 7 hundredths already. How many more tenths and hundredths do you need to make one whole?



Record your answer as a fraction.

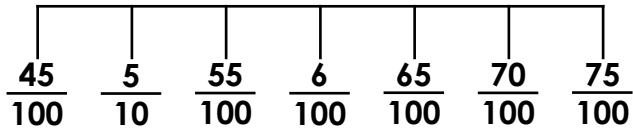


4 PS

## Hundredths

## Hundredths

7a. Giles has completed this section of a number line below.

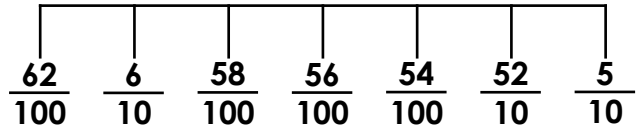


Is he correct? Explain how you know.



4 R

7b. Ellie has completed this section of a number line below.



Is she correct? Explain how you know.



4 R

8a. Match the child to the correct number.

Marty has 2 tenths and 28 hundredths.

Vic has 2 tenths and 18 hundredths.

Keisha has 3 tenths and 28 hundredths.

A.  $\frac{48}{100}$

B.  $\frac{58}{100}$

C.  $\frac{38}{100}$



4 PS

8b. Match the child to the correct number.

Lola has 4 tenths and 16 hundredths.

Jack has 4 tenths and 36 hundredths.

Edris has 5 tenths and 36 hundredths.

A.  $\frac{86}{100}$

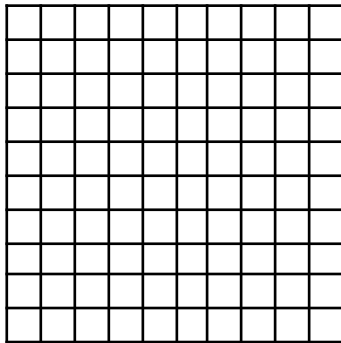
B.  $\frac{76}{100}$

C.  $\frac{56}{100}$



4 PS

9a. You have 7 tenths and 26 hundredths already. How many more tenths or hundredths do you need to make one whole?

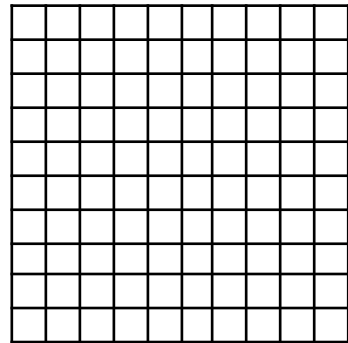


Record your answer as a fraction.



4 PS

9b. You have 8 tenths and 14 hundredths already. How many more tenths or hundredths do you need to make one whole?



Record your answer as a fraction.



4 PS

## Reasoning and Problem Solving Hundredths

### Developing

1a. Stan is incorrect as  $\frac{40}{100}$  should be  $\frac{50}{100}$

2a. Don = C, Mia = A, and Ken = B

3a.  $\frac{15}{100}$

### Expected

4a. Ollie is correct as  $\frac{7}{10}$  is equivalent to  $\frac{70}{100}$ .

5a. Sasha = B, Tom = C and Lottie = A

6a.  $\frac{5}{10}$  and  $\frac{7}{100}$ , or  $\frac{57}{100}$

### Greater Depth

7a. Giles is incorrect as  $\frac{6}{100}$  should be  $\frac{6}{10}$   
or  $\frac{60}{100}$

8a. Marty = A, Vic = C and Keisha = B

9a.  $\frac{4}{100}$

## Reasoning and Problem Solving Hundredths

### Developing

1b. Mel is incorrect as she has missed  $\frac{76}{100}$

2b. Kai = B, Sue = C and Len = A

3b.  $\frac{35}{100}$

### Expected

4b. Cally is incorrect as  $\frac{5}{10}$  should be  $\frac{6}{10}$  or  $\frac{60}{100}$ .

5b. Tara = C, Rick = A and Maggie = B

6b.  $\frac{3}{10}$  and  $\frac{3}{100}$ , or  $\frac{33}{100}$

### Greater Depth

7b. Ellie is incorrect as  $\frac{52}{10}$  should be  $\frac{52}{100}$

8b. Lola = C, Jack = B and Edris = A

9b.  $\frac{6}{100}$