

Year 4 maths - week beginning: 27.4.20

| Theme | Decimals Lesson 1 Writing tenths. | Decimals Lesson 2 Writing hundredths. | Decimals Lesson 3 Writing Decimals (Ones, Tenths and Hundredths) | Decimals Lesson 4 Writing Decimals (Tens, Ones, Tenths and Hundredths) | Decimals Lesson 5 Comparing and Ordering Decimals |
|----------------------------------|--|---|--|--|---|
| Factual fluency (to aid fluency) | https://www.topmarks.co.uk/math-s-games/hit-the-button Level 4 Mixed Multiplication. | https://www.topmarks.co.uk/math-s-games/hit-the-button Level 4 Mixed Multiplication. | https://www.topmarks.co.uk/math-s-games/hit-the-button Level 4 Mixed Multiplication. | https://www.topmarks.co.uk/math-s-games/hit-the-button Level 4 Mixed Multiplication. | https://www.topmarks.co.uk/math-s-games/hit-the-button Level 4 Mixed Multiplication. |
| Problem/activity of the day | <p>(Lesson 1 resources below) MAKING LINKS: We learnt about tenths in Year 4 when we investigated fractions and decimals.</p> <p>THINK: (support below) Can you help me with this problem? On my birthday, I shared my birthday cake with my family. I took 3 tenths of the cake, my mum took 2 tenths, my dad took 3 tenths and my brother and my sister both took 1 tenth each. How much did each person take? Record your answer in words, as a fraction and as a decimal.</p> <p>Make your own square birthday cake using paper. Cut your cake into tenths and share it the same way as I have shared my cake. Record your answers in words, as a fraction and as a decimal.</p> <p>SEE: (model below) DO: Use what you have learnt today to solve these problems (below).</p> | <p>(Lesson 2 resources below) MAKING LINKS: Yesterday we learnt what tenths were and how we can record them as fractions and decimal numbers. In Year 4 we have learnt how to do the same with hundredths.</p> <p>THINK: (support below) Can you help me with this problem? My friend threw a birthday party and invited 100 people! They ordered a giant cake and cut it into 100 pieces so everyone had a slice to take home. When 8 people had gone home, what fraction of the cake was gone? Can you record your answer as a fraction and a decimal? Can you also record how much cake remained, as a fraction and a decimal?</p> <p>SEE: (model below) DO: Use what you have learnt today to solve these problems (below).</p> | <p>(Lesson 3 resources below) MAKING LINKS: This week, we have learnt what tenths and hundredths are and we have learnt how to record them as fractions and decimal numbers.</p> <p>THINK (support below): Can you help me with this problem? I have some digit cards (2, 4, 0, 9). I want to use some of them to see what different numbers (with two decimal places) I can make. Create your own number cards and place value chart. Experiment with placing your digits in different places to make different numbers. What are the values of each of your digits?</p> <p>SEE (model below) Your numbers must have a digit in the ones place, the tenths place and the hundredths place.</p> <p>DO: Use what you have learnt today to solve these problems (below).</p> | <p>(Lesson 4 resources below) MAKING LINKS: Yesterday we learnt how to write the value of digits in decimal numbers using the ones, tenths and hundredths places.</p> <p>THINK (support below): Can you help me with this problem? My friend used digit cards and a place value chart to create the number 46.02. She then made some statements about the number but I'm not sure that all of her statements are correct. Use your knowledge of decimals and place value to help me figure out which of the statements is true. How can you prove that you are correct?</p> <p>SEE (model below) Check each statement to see if it is correct or not.</p> <p>DO: Use your own digit cards and a place value chart to create 5 of your own numbers. Write 3 false statements and 1 correct statement about each number and prove the correct one.</p> | <p>(Lesson 5 resources below) MAKING LINKS: Yesterday we learnt how to write the value of digits in decimal numbers using the tens, ones, tenths and hundredths places.</p> <p>THINK: (support below) Can you help me with this problem? Ben and Bob were playing a dice game. They rolled a dice three times and recorded their results in a place value chart. They wanted to see who had made the bigger number. Using a dice, play the game against someone in your family. You can find an online dice here. Draw a place value chart (ones, tenths and hundredths) and place the digits rolled on to the chart. Compare your results to see who has made the biggest number.</p> <p>SEE: (model below) Video clip explaining how to compare decimal numbers.</p> <p>DO: Use what you have learnt today to solve these problems (below).</p> |
| Methods, tips & clues | SEE model below (day 1) | SEE model below (day 2) | SEE model below (day 3) | SEE model below (day 4) | SEE model below (day 5) SEE video clip |
| Time to check | Day 1 – Answers below | Day 2 – Answers below | Day 3 – Answers below | Day 4 – ways to check below. | Day 5 – Answers below |

See below for resources to support you to THINK-SEE-DO

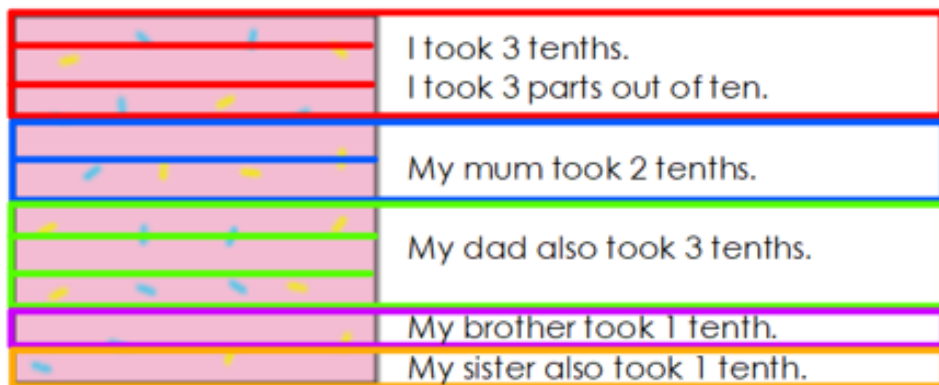
DAY 1 RESOURCES:

THINK:



The cake is split equally into ten parts. When we split a whole number into ten parts, we are splitting the whole number into tenths, I have one whole cake and I have split it into ten equal parts or tenths.

SEE:



If I know that one tenth = $\frac{1}{10} = 0.1$
what can I say about two tenths or
three tenths?

DO:

1. Write each number shown by the shaded part in words, as a fraction and as a decimal.



2. Draw and shade these decimals. Write each number shown by the shaded part in words, as a fraction and as a decimal.

0.2

0.5

0.7

0.6

3. Look at these fractions. Write their decimal equivalents.

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

$$\frac{5}{10}$$

$$\frac{3}{10}$$

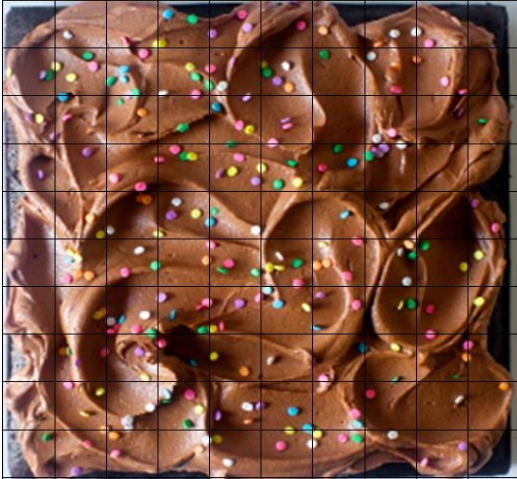
$$\frac{9}{10}$$

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



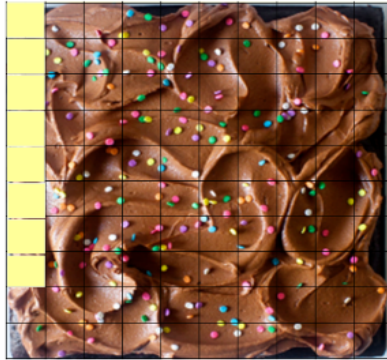
DAY 2 RESOURCES:

THINK:



My friend had one whole cake cut into 100 equal pieces: **1 whole = $\frac{100}{100}$**

SEE:



8 pieces of cake out of 100 are 8 hundredths or $\frac{8}{100}$

92 pieces of cake out of 100 are 92 hundredths or $\frac{92}{100}$

| Ones | Tenths | Hundredths |
|------|--------|------------|
| 0 | 0 | 8 |
| 0 | 9 | 2 |

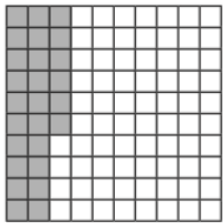
$\frac{8}{100}$ as a decimal number is 0.08

$\frac{92}{100}$ as a decimal number is 0.92

Can you see that 90 hundredths = 9 tenths? You can check this by looking at the cake or the place value chart.

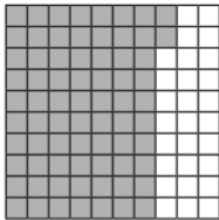
REMEMBER! The decimal point always goes between the ONES and the TENTHS. A place holder zero has been used to show there are no tenths in 0.08.

DO: 1. Write each shaded part as a fraction and as a decimal



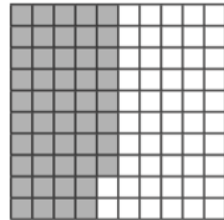
Fraction: _____

Decimal: _____



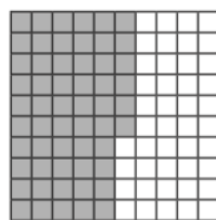
Fraction: _____

Decimal: _____



Fraction: _____

Decimal: _____



Fraction: _____

Decimal: _____

2. Write the following fractions as decimals. Draw and use a place value chart to help you if needed.

$\frac{7}{100}$ $\frac{9}{100}$ $\frac{21}{100}$ $\frac{55}{100}$ $\frac{90}{100}$ **1** $\frac{6}{100}$

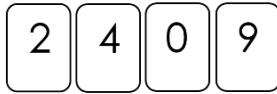
3. Can you complete these equivalent fractions? Use the cake picture and/or a place value chart to help if needed.

1. $\frac{10}{100} = \frac{1}{10}$ 2. $\frac{70}{100} = \frac{\square}{\square}$ 3. $\frac{40}{100} = \frac{\square}{\square}$ 4. $\frac{90}{100} = \frac{\square}{\square}$

DAY 3 RESOURCES:

THINK:

Use these digit cards:



| Ones | Tenths | Hundredths |
|------|--------|------------|
| | | |

How many different numbers can you make?

DO:

1. What does the digit 7 stand for in each number?

- a) 3.57
- b) 7.35
- c) 1.57
- d) 7.5
- e) 72.05
- f) 31.75

2. Match. What does the digit 5 stand for in each number?

6.57

7.85

5.78

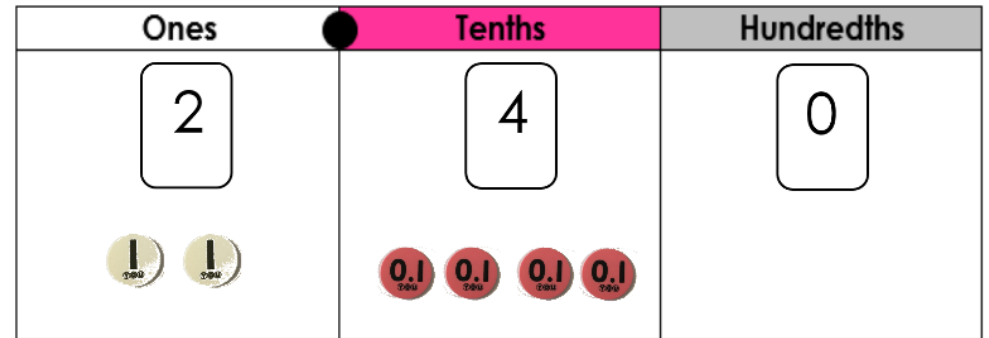
$\frac{5}{100}$

50

5

$\frac{5}{10}$

SEE:



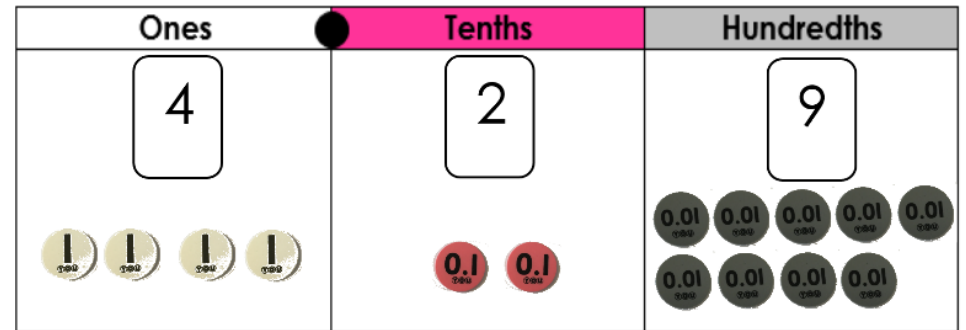
The digit 2 stands for 2 ones or just 2!

The digit 4 stands for 4 tenths = $\frac{4}{10} = 0.4$

The digit 0 just stands for 0

I have 2 ones, four tenths and zero hundredths.

We read this number as **two point four** or **two and four tenths**.



The digit 4 stands for 4 ones or just 4!

The digit 2 stands for 2 tenths = $\frac{2}{10} = 0.2$

The digit 9 stands for 9 hundredths = $\frac{9}{100} = 0.09$

I have 4 ones, two tenths and 9 hundredths.

We read this number as **four point two nine** or **four and twenty nine hundredths**.



Day 4 Resources:

THINK:

| Tens | Ones | Tenths | Hundredths |
|------|------|--------|------------|
| 4 | 6 | 0 | 2 |

Which of these statements is true?
Prove that you are correct!

Statement 1
My number has the same amount of tens as tenths.

Statement 2
My number has one decimal place.

Statement 3
My number has two hundredths.

Statement 4
My number has six tenths.

SEE:

| Tens | Ones | Tenths | Hundredths |
|--------------------------------------|-------------------------------------|----------------------------------|--------------------------------------|
| 4 | 6 | 0 | 2 |
| The digit 4 stands for 4 tens or 40. | The digit 6 stands for 6 ones or 6. | The digit 0 stands for 0 tenths. | The digit 2 stands for 2 hundredths. |

Statement 2
My number has one decimal place.

Look carefully at the decimal point. There are two digits which follow it. This means that this number has two decimal places.

Statement 2 can not be true because this number has two decimal places.

Statement 1 is incorrect. There are 4 tens and no tenths.
Statement 2 is incorrect. The number has two decimal places.
Statement three is correct.
Statement 4 is incorrect. There are zero tenths.

DO:

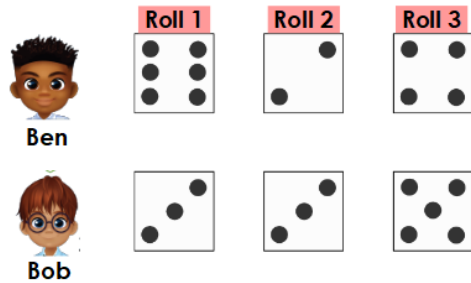
- Use digit cards and a place value chart to create 5 of your own numbers.
- Write 3 false statements and 1 true statement for each of your numbers.
- Prove the true statement.

You can use these ideas to help you:

- My number has the same amount of tens as tenths.
- My number has 1 decimal place.
- My number has 2 decimal places.
- My number has ____ hundredths.
- My number has ____ tenths.

Day 5 Resources:

THINK:

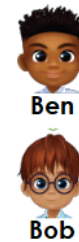


Ben and Bob rolled a dice three times each. They wanted to see who could make the biggest number. To help them compare their numbers, they wrote the digits rolled into a place value chart.

| | Ones | Tenths | Hundredths |
|-----|------|--------|------------|
| Ben | 6 | 2 | 4 |
| Bob | 3 | 3 | 5 |

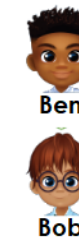
Who made the biggest number?

SEE:



| Ones | Tenths | Hundredths |
|------|--------|------------|
| 6 | 2 | 4 |
| 3 | 3 | 5 |

- When we compare numbers, we need to look at the place that has the highest value first.
- I can see from my place value chart that the ones place is the highest value because one is greater than tenths or hundredths.
- I can see that Ben has 6 ones and Bob has 3 ones.
- I can already see that Ben has the largest number because he has more ones than Bob.



| Ones | Tenths | Hundredths |
|------|--------|------------|
| 2 | 2 | 4 |
| 2 | 4 | 6 |

- These were Ben and Bob's results in the second round.
- To compare their numbers, they looked at the value of the digits in the ones place.
- Bob noticed that both their numbers had a 2 in the ones place.
- Ben said that they should then look at the value of the digit in the second largest place to help them compare.
- They looked at the tenths place next because tenths are bigger than hundredths.
- Ben's number had 2 tenths whilst Bob's number had 4 tenths.
- By comparing the value of the digits in the ones and the tenths places, Ben and Bob could see that this time, Bob's number was bigger because it contained the same number of ones but a greater number of tenths than Ben's number.

2.46 > 2.24

DO:

1. Circle the **greatest** number in each box.

| | | | |
|-----|-----|-----|-----|
| 3.4 | 2.3 | 4.3 | 1.3 |
|-----|-----|-----|-----|

| | | | |
|------|------|------|------|
| 3.73 | 3.75 | 3.69 | 3.76 |
|------|------|------|------|

| | | | |
|------|-----|-----|------|
| 2.89 | 2.9 | 2.8 | 2.19 |
|------|-----|-----|------|

2. Circle the **smallest** number in each box.

| | | | |
|-----|-----|-----|-----|
| 2.5 | 2.6 | 2.8 | 2.7 |
|-----|-----|-----|-----|

| | | | |
|------|------|------|------|
| 8.08 | 6.06 | 5.05 | 7.07 |
|------|------|------|------|

| | | | |
|------|------|------|-----|
| 4.53 | 4.58 | 4.54 | 4.6 |
|------|------|------|-----|

3. Fill in the blanks with $<$ or $>$.

| | | |
|------|--|------|
| 2.54 | | 2.44 |
| 4.05 | | 4.08 |
| 6.99 | | 6.89 |
| 9.59 | | 9.6 |
| 8.2 | | 8.02 |

Remember:

$<$ less than

$>$ greater than

Day 1 – Answers

1. Write each number shown by the shaded part in words, as a fraction and as a decimal.



$$8 \text{ tenths} = \frac{8}{10} = 0.8$$



$$4 \text{ tenths} = \frac{4}{10} = 0.4$$



$$9 \text{ tenths} = \frac{9}{10} = 0.9$$

2. Draw and shade these decimals. Write each number shown by the shaded part in words, as a fraction and as a decimal.

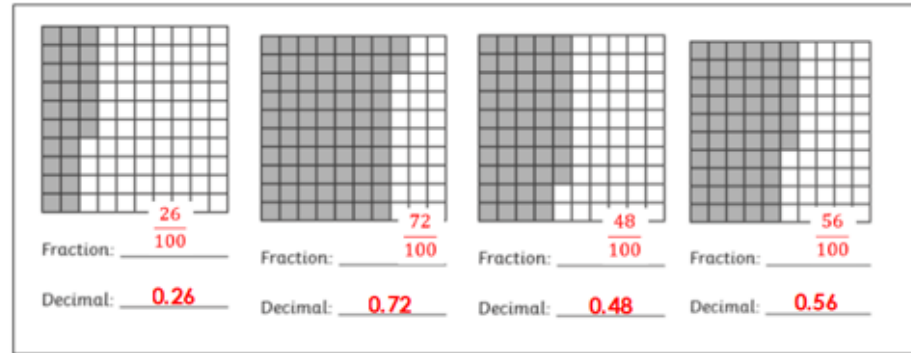


3. Look at these fractions. Write their decimal equivalents.

| | | | | |
|----------------|----------------|----------------|----------------|-----------------|
| $\frac{7}{10}$ | $\frac{5}{10}$ | $\frac{3}{10}$ | $\frac{9}{10}$ | $\frac{10}{10}$ |
| 0.7 | 0.5 | 0.3 | 0.9 | 1 |

Day 2 – Answers

1. Write each shaded part as a fraction and a decimal.



2. Write the following fractions as decimals. Draw and use a place value chart to help you if needed.

| | | | | | |
|-----------------|-----------------|------------------|------------------|------------------|------------------|
| $\frac{7}{100}$ | $\frac{9}{100}$ | $\frac{21}{100}$ | $\frac{55}{100}$ | $\frac{90}{100}$ | $1\frac{6}{100}$ |
| 0.07 | 0.09 | 0.21 | 0.55 | 0.90 | 1.06 |

3. Can you complete these equivalent fractions? Use the cake picture and/or a place value chart to help if needed.

| | | | |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| 1. $\frac{10}{100} = \frac{1}{10}$ | 2. $\frac{70}{100} = \frac{7}{10}$ | 3. $\frac{40}{100} = \frac{4}{10}$ | 4. $\frac{90}{100} = \frac{9}{10}$ |
|------------------------------------|------------------------------------|------------------------------------|------------------------------------|

Day 3 – Answers

1. What does the digit 7 stand for in each number?

a) 3.57 7 hundredths or 0.07

b) 7.35 7 ones or 7

c) 1.57 7 hundredths or 0.07

d) 7.5 7 ones or 7

e) 72.05 7 tens or 70

f) 31.75 7 tenths or 0.7

2. Match. What does the digit 5 stand for in each number?

| | |
|------|-----------------|
| 6.57 | $\frac{5}{100}$ |
| 7.85 | 50 |
| 5.78 | 5 |
| | $\frac{5}{10}$ |

Red lines connect 6.57 to $\frac{5}{10}$, 7.85 to 5, and 5.78 to $\frac{5}{100}$.

Day 4 – Answers checker

- Have you used four digits?
- What digit is in the tens place, the ones place, the tenths place and the hundredth place?
- Have you used the same digit more than once, in what places?
- How many digits come after the decimal place?

Day 5 Answers

1. Circle the greatest number in each box.

| | | | |
|------|------|------|------|
| 3.4 | 2.3 | 4.3 | 1.3 |
| 3.73 | 3.75 | 3.69 | 3.76 |
| 2.89 | 2.9 | 2.8 | 2.19 |

2. Circle the smallest number in each box.

| | | | |
|------|------|------|------|
| 2.5 | 2.6 | 2.8 | 2.7 |
| 8.08 | 6.06 | 5.05 | 7.07 |
| 4.53 | 4.58 | 4.54 | 4.6 |

3. Fill in the blanks with < or >.

| | | |
|------|---|------|
| 2.54 | > | 2.44 |
| 4.05 | < | 4.08 |
| 6.99 | > | 6.89 |
| 9.59 | < | 9.6 |
| 8.2 | > | 8.02 |

Remember:

< less than

> greater than