White Rose
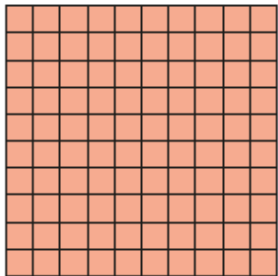# Year 5 Activity Sheets

Monday – Lesson 1

Decimals as Fractions

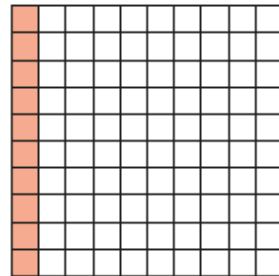# Decimals as fractions (2)

1 This grid represents 1

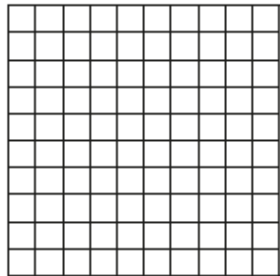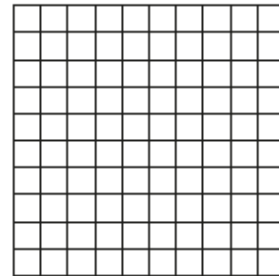This grid represents 0.1 or $\frac{10}{100}$ or $\frac{1}{10}$

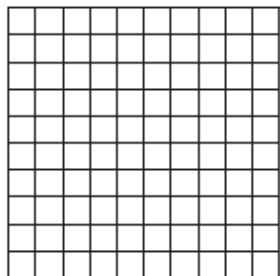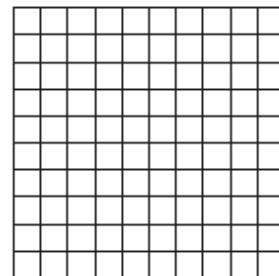Colour the hundred squares to represent the fractions.

a) $\frac{2}{100}$

c) $\frac{20}{100}$

b) $\frac{2}{10}$

d) $\frac{90}{100}$

2 Complete the numbers to show how much of the square is shaded.
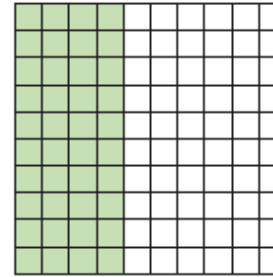
$\frac{\boxed{}}{100}$

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

$0.\underline{}$

3 What fractions and decimals are represented?

a)

$1\frac{23}{100} = \boxed{}$

b)

$\boxed{} \frac{\boxed{}}{100} = \boxed{}$

c)

$\boxed{} \frac{\boxed{}}{10} = \boxed{}$
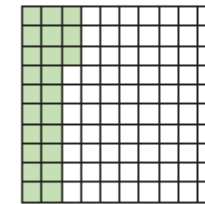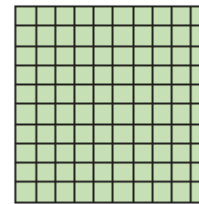
© White Rose Maths 20

4
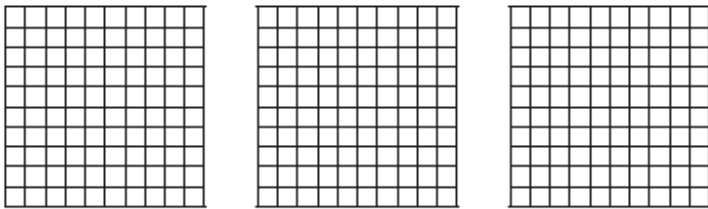
a) Represent 2.15

b) Represent $3\frac{7}{10}$
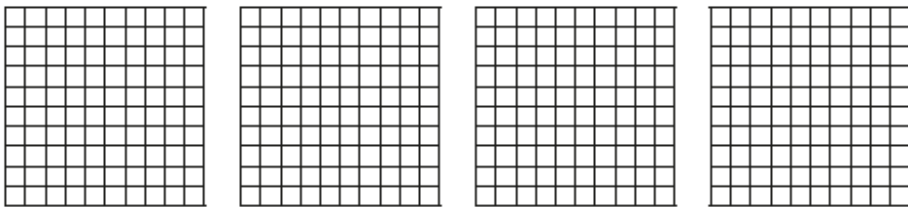
5 a) Label the number line with the decimals.

| 1.3 | 1.6 | 1.85 | 1.98 |

1.0   2.0
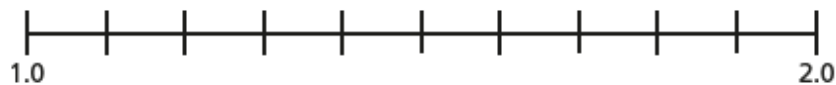
b) Label the number line with the fractions.

| $5\frac{1}{10}$ | $5\frac{1}{2}$ | $5\frac{73}{100}$ | $\frac{590}{100}$ |

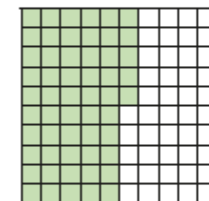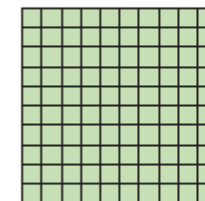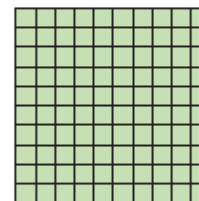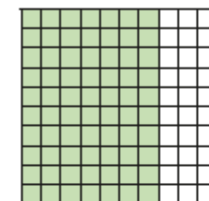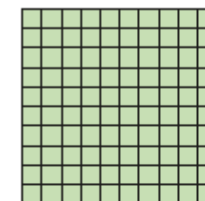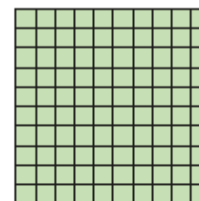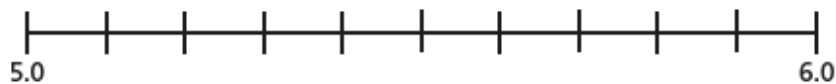5.0   6.0

6 Complete the table.

Decimal	Decimal (expanded form)	Fraction	Fraction (expanded form)	In words
2.13	2 + 0.1 + 0.03	$2\frac{13}{100}$	$2 + \frac{1}{10} + \frac{3}{100}$	2 ones, 1 tenth and 3 hundredths
4.37		$4\frac{\square}{100}$		
	5 + 0.6 + 0.02			
				8 ones and 2 hundredths

7 Write the decimals as fractions.
Give your answer as a mixed number.

a) $32.6 = \boxed{}\frac{\boxed{}}{10}$

b) $2.03 = \boxed{}\frac{\boxed{}}{100}$

c) $13.08 = \boxed{}\frac{\boxed{}}{100}$

d) $3.98 = \boxed{}\frac{\boxed{}}{100}$

8 Use the digits 3, 4 and 5 to complete the decimal number.

| $\boxed{}$ | $\boxed{}$ | . | 0 | $\boxed{}$ |

How many different numbers can you make?

Tuesday – Lesson 2

Understanding Thousandths

Understand thousandths

1 Tommy is using base 10 to represent decimals.

He uses [cube] to represent 1 whole.
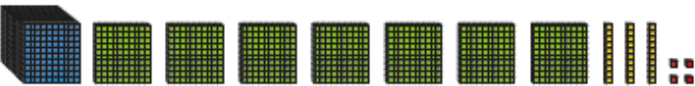
He uses [flat] to represent $\frac{1}{10}$ or 0.1
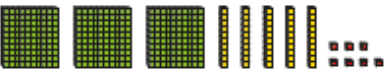
He uses [rod] to represent $\frac{1}{100}$ or 0.01

He uses [small cube] to represent $\frac{1}{1000}$ or 0.001

What decimals are represented?

a) [5 cubes, 3 flats, 2 rods, dot] _____

b) [1 cube, 7 flats, 3 rods, 4 small cubes] _____

c) [3 flats, 6 rods, 6 small cubes] _____

2 a) Represent each number using base 10

0.512   1.352   2.003

b) Use your representations to help you complete the statements.

$0.512 = 0.5 + 0.01 +$ ☐

$1.352 = 1 +$ ☐ $+$ ☐ $+$ ☐

$2.003 =$ _____

3 Here is a thousand square.

Part of the square has been coloured.
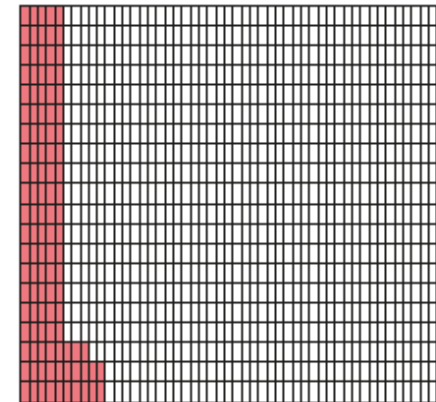
a) Why do you think it is called a thousand square?

_____

b) What fraction of the square has been coloured? $\frac{\square}{1000}$

c) Write the fraction as a decimal.   ☐

4 What fraction of each square has been shaded?

Write each number as a fraction and as a decimal.

a)
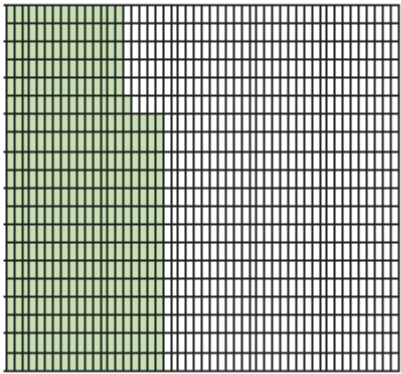
fraction = ☐

decimal = ☐

b)
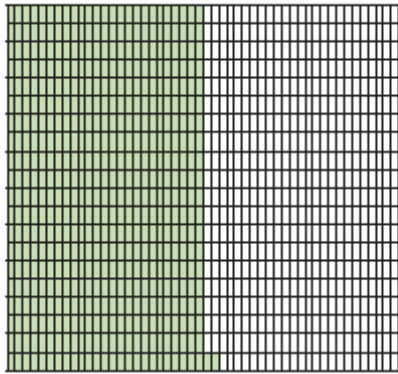
fraction = ☐

decimal = ☐

5 Colour the grids to represent the fraction and decimal.

a) $\dfrac{73}{1000}$
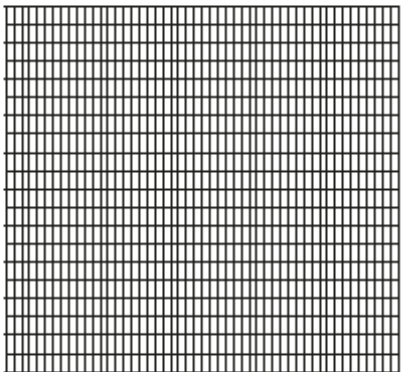
b) 0.302
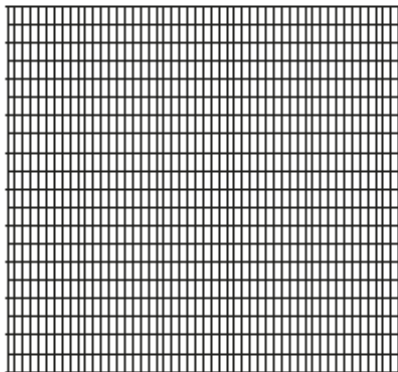
6 Represent these numbers on a place value chart.

a) 1.372   b) 0.091   c) 3.542

7 Show that $\dfrac{400}{1000}$ is the same as 0.4
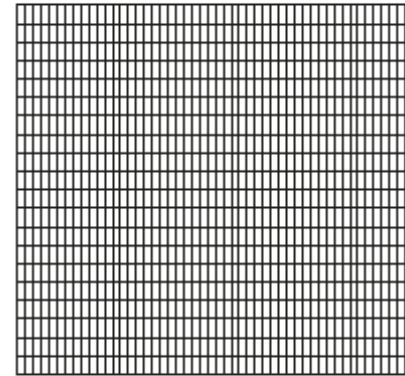
8 Write the numbers represented by the place value charts.

a)

Ones	Tenths	Hundredths	Thousandths
1 1 1	0.1 0.1	0.01 0.01 0.01 0.01	0.001 0.001 0.001
1		0.01 0.01 0.01	0.001 0.001 0.001

☐

b)

Ones	Tenths	Hundredths	Thousandths
	0.1 0.1 0.1		0.001 0.001
	0.1 0.1		0.001 0.001

☐

Wednesday – Lesson 3

Rounding Decimals

Rounding decimals

1 Show the position of each number on the number line.

Use the number line to round these decimals to the nearest whole number.
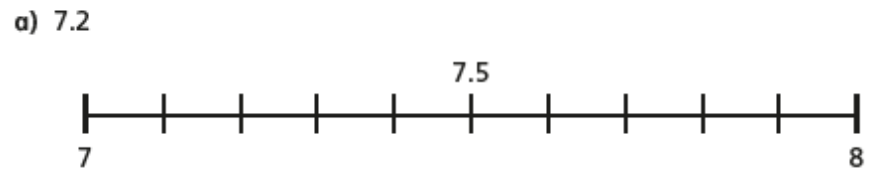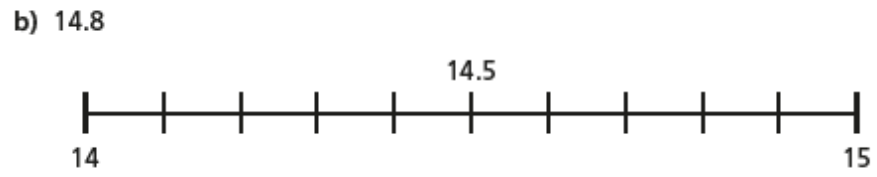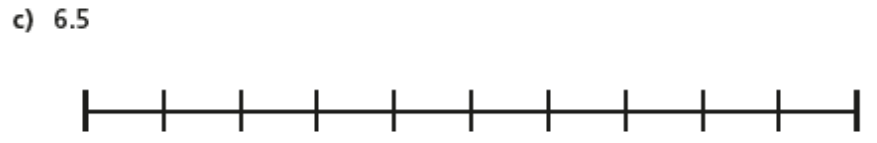
a) 7.2

```
        7.5
7 ├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤ 8
```

The nearest whole number is ☐

b) 14.8

```
        14.5
14 ├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤ 15
```

The nearest whole number is ☐

c) 6.5

```
├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
```

The nearest whole number is ☐

Explain to a partner how to round decimal numbers to the nearest whole number.

2 Use the number line to round these decimal numbers to the nearest tenth and the nearest whole number.
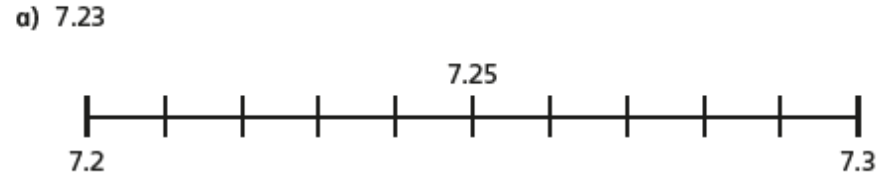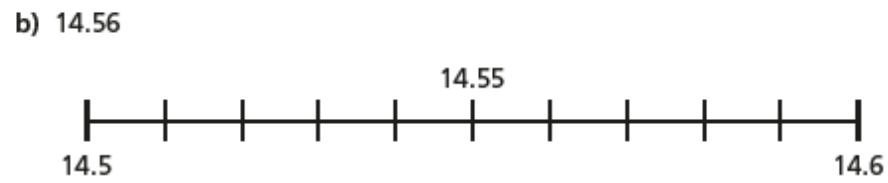
a) 7.23

```
                 7.25
7.2 ├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤ 7.3
```

The nearest tenth is ☐

The nearest whole number is ☐

b) 14.56

```
              14.55
14.5 ├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤ 14.6
```

The nearest tenth is ☐

The nearest whole number is ☐

c) 6.45

```
├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
```
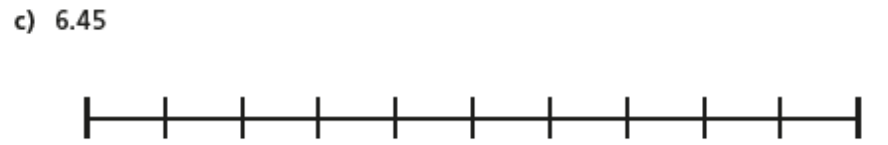
The nearest tenth is ☐

The nearest whole number is ☐

Explain to a partner how to round decimal numbers to one decimal place.

3

a) When rounding to the nearest tenth, how many digits will there be after the decimal point? [ ]

b) Round each number to one decimal place.

1.33 [ ]   4.03 [ ]

1.34 [ ]   4.04 [ ]

1.35 [ ]   4.05 [ ]

1.36 [ ]   4.06 [ ]

1.37 [ ]   4.07 [ ]

4 Round each number to the nearest tenth.

a) 4.21 [ ]   d) 11.86 [ ]   g) 12.92 [ ]

b) 8.09 [ ]   e) 5.67 [ ]   h) 10.65 [ ]

c) 4.84 [ ]   f) 0.15 [ ]

5 Circle each decimal that rounds to 6.2

6.32   6.23   6.27   6.17   6.12   6.25

Explain your reasoning.

_____

_____

6 Here are the weights in kilograms of some parcels.

3.48 kg   1.42 kg   10.65 kg   1.03 kg

a) Round the weight of each parcel to 1 decimal place.

[ ] kg [ ] kg [ ] kg [ ] kg

b) The weight of each parcel has been rounded to the nearest 100g.

Is this true or false? _____

Talk about it with a partner.

7 Amir is thinking of a number.

Rounded to the nearest whole his number is 5

Rounded to the nearest tenth his number is 4.8

Write at least four different numbers that Amir could be thinking of.

_____

_____

8 A farmer is building a new fence for her sheep field.

Here are the measurements.

125.45 m

89.56 m

She wants to build a fence around the whole field.

Estimate how much fencing you think she will need.

Talk about your estimate with a partner.

Thursday – Lesson 4

Order and Compare Decimals

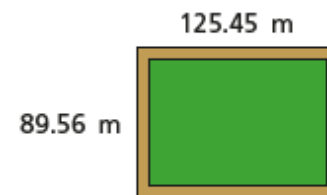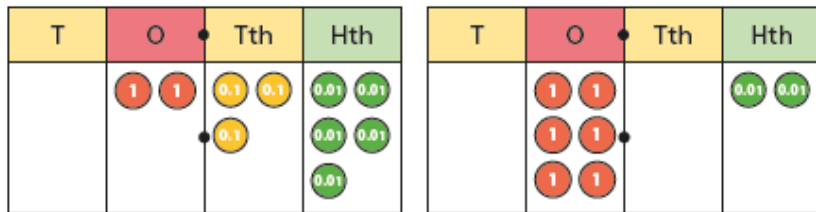# Order and compare decimals
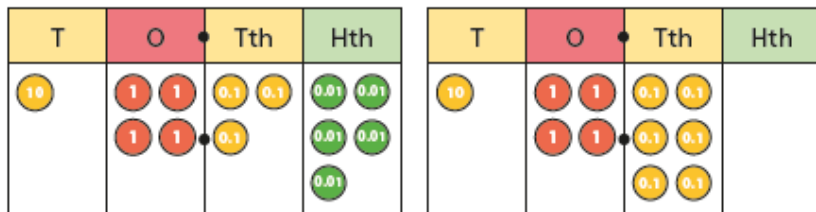

1 Which number is greater?

Tick your answer.

T	O	.	Tth	Hth
	1 1		0.1 0.1 0.1	0.01 0.01 0.01 0.01 0.01

T	O	.	Tth	Hth
	1 1 1 1 1 1			0.01 0.01

Explain your answer.

_____

_____

2 Which is the smaller number?

Tick your answer.

T	O	.	Tth	Hth
10	1 1 1 1		0.1 0.1 0.1	0.01 0.01 0.01 0.01 0.01

T	O	.	Tth	Hth
10	1 1 1 1		0.1 0.1 0.1 0.1 0.1 0.1	

Explain your answer.

_____

_____

3 Use place value counters to make each of the numbers.

| 4.13 | | 4.08 | | 5.1 |

a) Which is the greatest number?   ☐

b) Which is the smallest number?   ☐

How do you know?

4 Here are some numbers in a place value chart.

Ones	.	Tenths	Hundredths	Thousandths
3		2	3	4
3		1	6	
3		2	0	8
3		1	4	5

Write the numbers in order, starting with the greatest.

☐   ☐   ☐   ☐

5 Mo, Amir, Ron, Teddy and Jack are measuring their heights with a metre rule.

Mo	Amir	Ron	Teddy	Jack
1.35 m	1.53 m	1.32 m	1.3 m	1.5 m
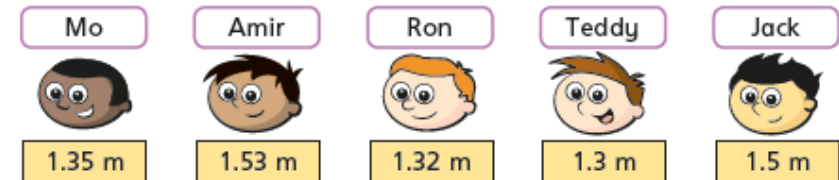
Write the names and heights of the children in order from shortest to tallest.

Name	Height

6 Alex and Dora are competing in the long jump.

Alex jumps 1.35 metres and Dora jumps 1.4 metres.

Alex wins because 35 is greater than 4

a) Is Dora correct? _____

Talk about it with a partner.

b) Kim joins in the competition.

What is the shortest distance she can jump to go into the lead?

_____

7 Write the numbers in ascending order.

a)
| 0.45 | 0.654 | 0.546 | 0.405 |

b)
| 7.2 kg | 7.212 kg | 7.21 kg |

c)
| 25.391 | 25.309 | 25.093 | 25.193 |

8 Dexter is thinking of a number.

It is a decimal number with 2 decimal places that is greater than 2.47 but less than 2.58

What possible numbers could Dexter be thinking of?

_____

_____

9 Tick the numbers that are equal to 2.5

Circle the numbers that are greater than 2.5

You will need to convert the mixed numbers to decimal numbers first.

| 2.05 | $2\frac{5}{10}$ | $2\frac{1}{2}$ |

| $2\frac{5}{100}$ | 2.53 | $2\frac{3}{5}$ |

| 2.501 | $2\frac{80}{100}$ | $2\frac{3}{10}$ |

Friday

Note to Parents:

The Friday Challenge will be made available on the White Rose Year 6 Home Learning page closer the time. 😊