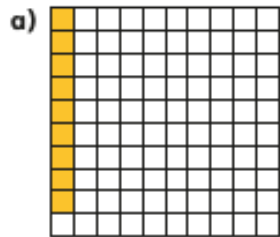# White Rose
Year 5 Activity Sheets

Monday – Lesson 1
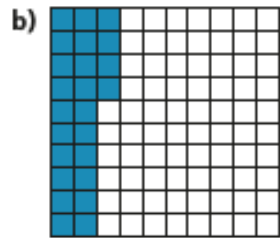## *Understanding Percentages*

Understand percentages

1 Complete the sentence for each diagram.
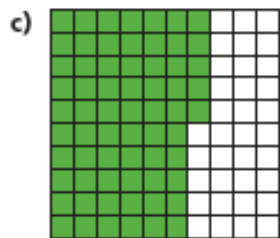
a)

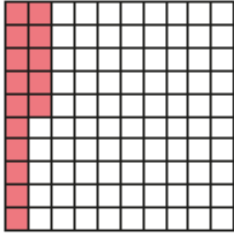There are ☐ parts out of a hundred shaded.

This is ☐ %.

b)

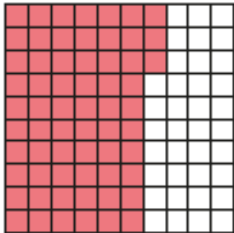There are ☐ parts out of a hundred shaded.
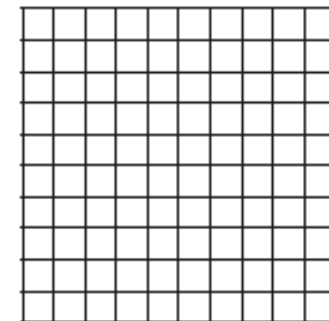
This is ☐ %.

c)
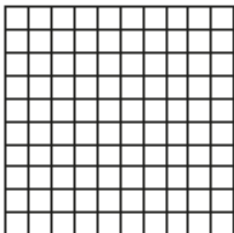
There are ☐ parts out of a hundred shaded.

This is ☐ %.

2 Complete the table.

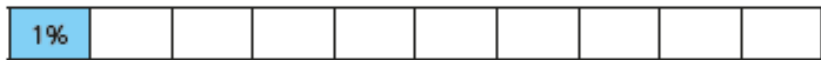| Hundred square	Percentage
	82%

3 Shade 15% of the hundred square red.

Shade 32% of the hundred square blue.

What percentage of the hundred square is **not** shaded? ☐ %

4 a) Is 1% of this bar model shaded? _____

1%									

Explain your reasoning.

_____

_____

b) What percentage of each bar model is shaded?

☐ %

☐ %

5 Passengers are boarding a plane.

The plane has 100 seats.

a) 10% of the seats are already full.

How many passengers are already on the plane? ☐

b) 15% of the seats have not been booked.

How many seats have been booked? ☐

c) How many passengers still need to board the plane? ☐

6 Dexter has £1 to spend.

He buys some stickers.

I got 35p change.

What percentage of his money did Dexter spend?

☐ %

7 Aisha and Brett have been selling tickets for the school play.

There are 100 seats available.

- On Monday they sold 34% of the tickets.
- On Tuesday they sold 42 tickets.
- By the end of Wednesday, 95% of the tickets had been sold.

How many tickets did they sell on Wednesday?

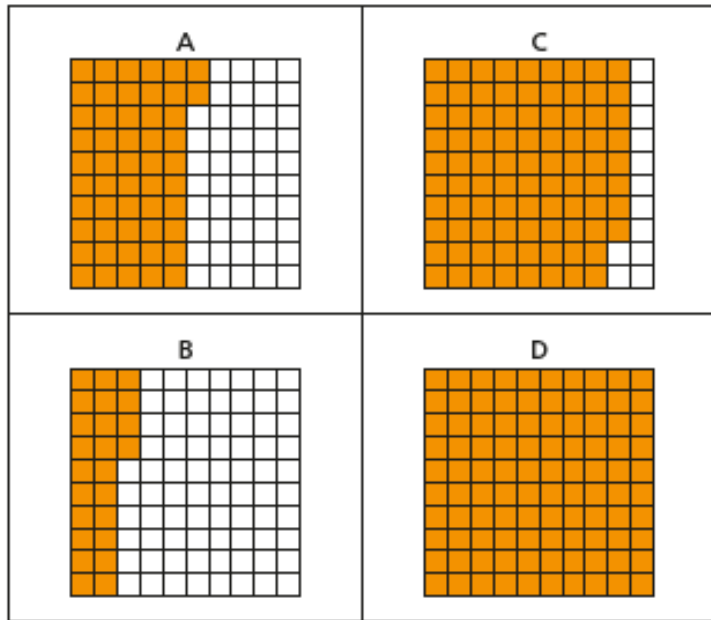On Wednesday they sold ☐ tickets.

8 Shade 85% of this bar model.

Compare answers with a partner.

Tuesday – Lesson 2

Percentages as Fractions and Decimals

Percentages as fractions and decimals

1 Here are four hundred squares.

Complete the table.

Hundred square	Percentage	Fraction	Decimal
A		$\frac{52}{100}$	
B			
C			
D			

2 Prove that 0.2 is equal to 20%.

You may use the hundred square to help you.

_____

_____

_____

_____
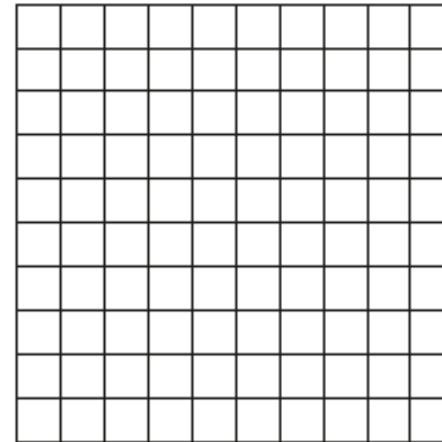
Why do you think some people think that 0.2 is equal to 2%?

3 Complete the fraction, decimal and percentage equivalents.

a) $32\% = \frac{\boxed{}}{100} = \boxed{}$

$35\% = \frac{\boxed{}}{100} = \boxed{}$

$48\% = \frac{\boxed{}}{100} = \boxed{}$

b) $\frac{17}{100} = \boxed{} \quad \% = \boxed{}$

$\frac{9}{100} = \boxed{} \quad \% = \boxed{}$

$\frac{90}{100} = \boxed{} \quad \% = \boxed{}$

c) $0.29 = \boxed{} \% = \frac{\boxed{}}{100}$

$0.71 = \boxed{} \% = \frac{\boxed{}}{100}$

$0.03 = \boxed{} \% = \frac{\boxed{}}{100}$

4 Write <, > or = to complete the statements.

a) 50% ◯ $\frac{5}{100}$

b) 25% ◯ $\frac{50}{100}$

c) 14% ◯ $\frac{41}{100}$

d) $\frac{40}{100}$ ◯ 40%

e) $\frac{70}{100}$ ◯ 7%

f) 82% ◯ $\frac{82}{100}$

5 Write the values in order from smallest to greatest.

a) 33% $\frac{30}{100}$ 3% $\frac{13}{100}$

_____

b) 299% $\frac{91}{100}$ 9% $\frac{9}{10}$

_____

c) 2.5 $\frac{25}{100}$ 250   25% of 100 $\frac{25}{1000}$

_____

6 Convert the fractions to hundredths.

Complete the decimal and percentage equivalents.

a) $\frac{150}{300} = \frac{\boxed{}}{100} = \boxed{} = \boxed{}$ %

b) $\frac{25}{500} = \frac{\boxed{}}{100} = \boxed{} = \boxed{}$ %

c) $\frac{48}{300} = \frac{\boxed{}}{100} = \boxed{} = \boxed{}$ %

d) $\frac{18}{50} = \frac{\boxed{}}{100} = \boxed{} = \boxed{}$ %

e) $\frac{13}{25} = \frac{\boxed{}}{100} = \boxed{} = \boxed{}$ %

7 Circle all the fractions that are greater than or equal to 50%.

$\frac{10}{50}$ $\frac{4}{5}$ $\frac{50}{100}$

$\frac{30}{80}$ $\frac{1}{50}$ $\frac{70}{140}$

8 Jack and Dora go shopping with the same amount of money.

Jack spends $\frac{1}{3}$ of his money.

Dora spends 30% of her money.

a) Who spends more money? _____

Use fraction and percentage equivalence to explain your answer.

b) Jack and Dora each started with £300

How much money do they each have left?

Jack $\boxed{}$ Dora $\boxed{}$

Wednesday – Lesson 3

Adding decimals with the same number of decimal places

Adding decimals with the same number of decimal places

1 Complete the additions.

Use the place value charts to help you.

a) 4.45 + 3.21 = ☐

Ones	Tenths	Hundredths
①①①	0.1 0.1 0.1	0.01 0.01 0.01
①	0.1	0.01 0.01
①①①	0.1 0.1	0.01

+

	4 .	4	5
+	3 .	2	1
	.		

b) 4.45 + 3.61 = ☐

Ones	Tenths	Hundredths

+

	4 .	4	5
+	3 .	6	1
	.		

c) 4.45 + 3.78 = ☐

Ones	Tenths	Hundredths

+

	4 .	4	5
+	3 .	7	8
	.		

Which calculation was easier? Talk about it with a partner.

2 Use the column method to work out the additions.

a)

		5 .	3
+		2 .	5
		.	

b)

		6 .	0	3
+		3 .	9	1
		.		

c)

		2 .	3	2
+	1	0 .	1	7
		.		

d)

		6 .	3	7
+		6 .	2	6
		.		

e)

		3 .	1	0	2
+		5 .	8	7	6
		.			

f)

	1	2 .	0	3	4
+		9 .	2	2	7
		.			

g)

		5 .	7	5
		5 .	3	2
+		5 .	0	1
		.		

h)

		1	4 .	9	9
+		1	2 .	3	7
			.		

3 Work out the calculations.

Write <, > or = to make the statements correct.

a)   0.64 + 4.79 ◯ 5.01 + 0.23

b) 7.427 + 3.238 ◯ 5.427 + 5.832

c)   3.08 + 4.63 ◯ 4.84 + 2.87
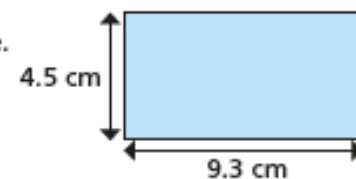
4 Teddy is working out the total cost of these items.

£5.75

£11.20

Here are his workings.

$$
\begin{array}{r}
5 \cdot 7 \; 5 \\
+ \quad 1 \; 1 \cdot 2 \; 0 \\
\hline
6 \; 8 \cdot 7 \; 0 \\
\hline
\end{array}
$$

Talk to a partner about Teddy's mistake.

Work out the correct answer.

5 Work out the perimeter of the shape.

4.5 cm

9.3 cm

perimeter = ☐ cm

6 Complete the number line.

+ 1.78   + 1.78   + 1.78

3.65
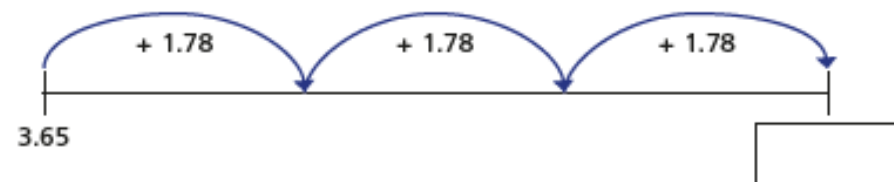
7 Eva starts with the number 1.62

I added a number and got 2.8

Eva

Rosie

This is impossible as 2.8 only has one digit after the decimal.

Is Rosie correct? _____

Talk about it with a partner.

Thursday – Lesson 4

Adding decimals with a different number of decimal places

Adding decimals with a different number of decimal places

1 Ron is adding 1.4 and 2.53

He makes each number with counters.

Ones	Tenths	Hundredths
●	● ● ● ●	
● ●	● ● ● ● ●	● ● ●

a) What is the answer to Ron's calculation?

b) Explain your method to a partner.

c) Did you have to make an exchange? _____

2 Work out the additions.

a)
```
      3 . 0   2
  +   1 . 6
  _____
        .
  _____
```

c)
```
          2 . 8
  +   3 . 4   5
  _____
        .
  _____
```

b)
```
      1   3 . 5
  +       0 . 2   3
  _____
        .
  _____
```

d)
```
          6 . 1   5
  +   1   3 . 9
  _____
        .
  _____
```

3 Filip is adding two numbers together.

He writes it as a column addition.

```
      1   3 . 8
  +       1 . 9   5
  _____
      3 . 3   3
  _____
      1       1
```

a) What mistake has Filip made?

_____

_____

b) Use the column method to work out the correct answer.

4 Use the column method to work out the additions.

a) 2.36 + 1.9   b) 14.82 + 3.7

5 Use the column method to work out the additions.
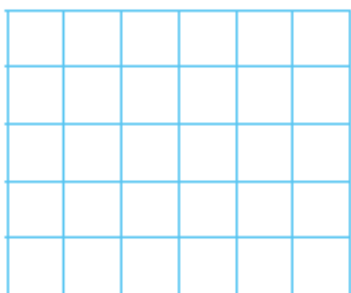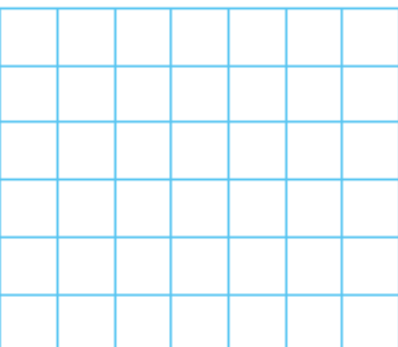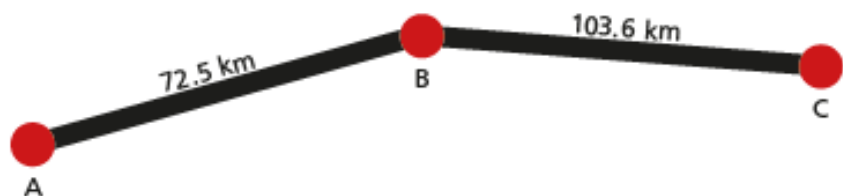
a) 0.59 + 11.9
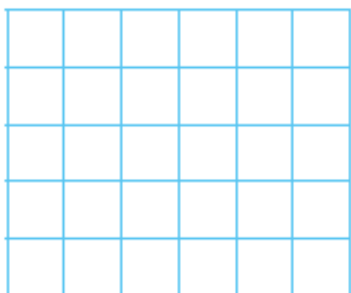
c) 0.591 + 1.73
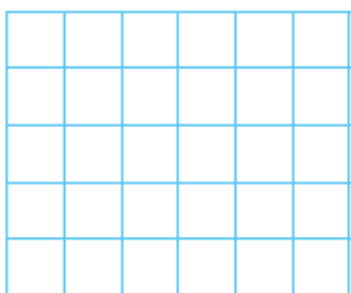
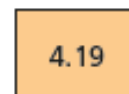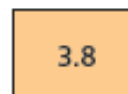b) 77.34 + 1.82

d) 3.2 + 1.84 + 0.931

6 Mr Hall drives from point A to point B, then on to point C.

103.6 km

72.5 km

B

C

A

What is the total distance that Mr Hall drives?

[ ] km

7 Here are four number cards.

| 3.8 | 4.19 | 0.72 | 11.46 |
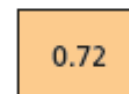
a) What is the greatest total you can make by adding two of the numbers?

Complete the calculation.

[ ] + [ ] = [ ]

b) What is the sum of the four numbers?

[ ]

8 Work out the missing digits.

a) __4.3 + 1__.37 = 39.67

b) 4.8__ + __.__ = 12.65

9 The total mass of the two boxes is 10.85 kg.

What could the mass of each box be?

__.__ kg

__.__ __ kg

How many answers can you find?

Friday

Note to Parents:

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