



W.C.15th June 2020

<https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-lessons/1>

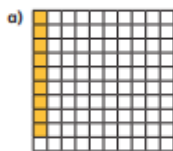
Maths ANSWERS

Monday

Understand percentages

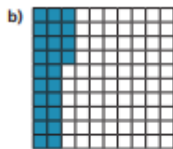


1 Complete the sentence for each diagram.



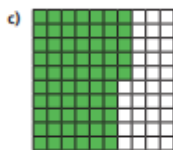
There are parts out of a hundred shaded.

This is %.



There are parts out of a hundred shaded.

This is %.



There are parts out of a hundred shaded.

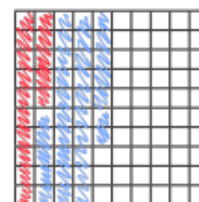
This is %.

2 Complete the table.

Hundred square	Percentage
	15%
	63%
	82%

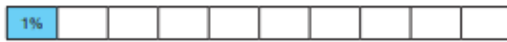
3 Shade 15% of the hundred square red.

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? No



Explain your reasoning.

It's split into 10 parts so each part is 10%

- b) What percentage of each bar model is shaded?



30 %



70 %

- 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?

10

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

How many seats have been booked?

85

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

75

- 6 Dexter has £1 to spend.
He buys some stickers.



I got 35p change.



What percentage of his money did Dexter spend?

$$£1 - 35p = 65p \leftarrow \text{spent}$$

65 %

$$\frac{65p}{100p}$$

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

How many tickets did they sell on Wednesday?

$$34 + 42 = 76$$

$$95 - 76 = 19$$

On Wednesday they sold 19 tickets.

- 8 Shade 85% of this bar model.

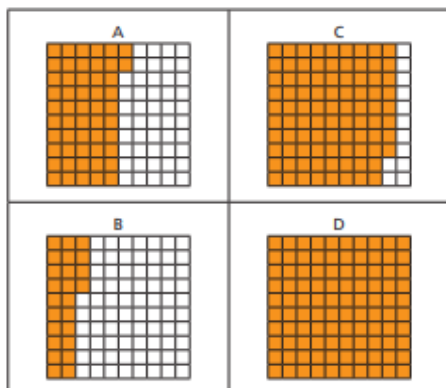


Compare answers with a partner.

Tuesday

Percentages as fractions and decimals

- 1 Here are four hundred squares.



Complete the table.

Hundred square	Percentage	Fraction	Decimal
A	52%	$\frac{52}{100}$	0.52
B	24%	$\frac{24}{100}$	0.24
C	88%	$\frac{88}{100}$	0.88
D	100%	$\frac{100}{100}$	1

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

- a) 50% $>$ $\frac{5}{100}$ d) $\frac{40}{100}$ $=$ 40%
 b) 25% $<$ $\frac{50}{100}$ e) $\frac{70}{100}$ $>$ 7%
 c) 14% $<$ $\frac{41}{100}$ f) 82% $=$ $\frac{82}{100}$

- 5 Write the values in order from smallest to greatest.

- a) 33% $\frac{30}{100}$ 3% $\frac{13}{100}$
 3%, $\frac{13}{100}$, $\frac{30}{100}$, 33%
 b) 299% $\frac{91}{100}$ 9% $\frac{9}{10}$
 9%, $\frac{9}{10}$, $\frac{91}{100}$, 299%
 c) 2.5 $\frac{25}{100}$ 250 25% of 100 $\frac{25}{1000}$
 $\frac{25}{1000}$, $\frac{25}{100}$, 2.5, 25% of 100, 250

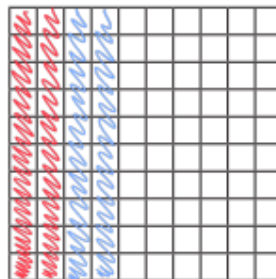
- 6 Convert the fractions to hundredths.

Complete the decimal and percentage equivalents.

- a) $\frac{150}{300} = \frac{50}{100} = 0.5 = 50\%$
 b) $\frac{25}{500} = \frac{5}{100} = 0.05 = 5\%$
 c) $\frac{48}{300} = \frac{16}{100} = 0.16 = 16\%$

- 2 Prove that 0.2 is equal to 20%.

You may use the hundred square to help you.



$$0.2 \times 2 \text{ tens} = \frac{2}{10} = \frac{20}{100}$$

$$20\% = \frac{20}{100}$$

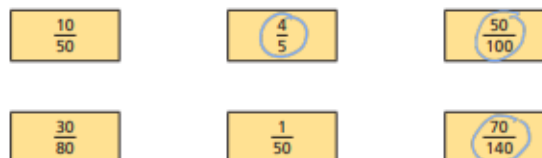
Why do you think some people think that 0.2 is equal to 2%?

- 3 Complete the fraction, decimal and percentage equivalents.

- a) $32\% = \frac{32}{100} = 0.32$ c) $0.29 = \frac{29}{100} = 29\%$
 $35\% = \frac{35}{100} = 0.35$ $0.71 = \frac{71}{100} = 71\%$
 $48\% = \frac{48}{100} = 0.48$ $0.03 = \frac{3}{100} = 3\%$
 b) $\frac{17}{100} = \frac{17}{100} = 0.17$ $\frac{9}{100} = \frac{9}{100} = 0.09$
 $\frac{90}{100} = \frac{90}{100} = 0.9$

- d) $\frac{18}{50} = \frac{36}{100} = 0.36 = 36\%$
 e) $\frac{13}{25} = \frac{52}{100} = 0.52 = 52\%$

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



- 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? Jack

Use fraction and percentage equivalence to explain your answer.

$$\frac{1}{3} = \frac{10}{30}$$

$$30\% = \frac{3}{10} = \frac{9}{30}$$

- b) Jack and Dora each started with £300

How much money do they each have left?

Jack £200 Dora £210

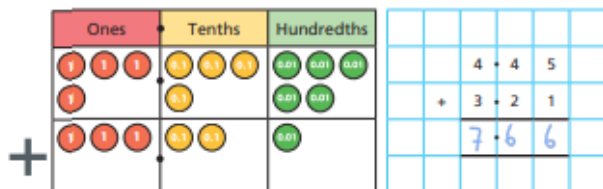
Adding decimals with the same number of decimal places

Rose Maths

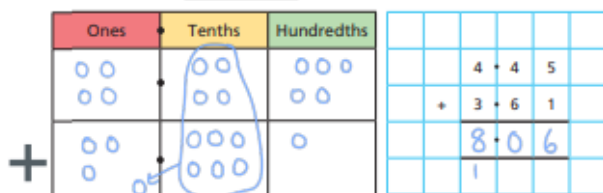
1 Complete the additions.

Use the place value charts to help you.

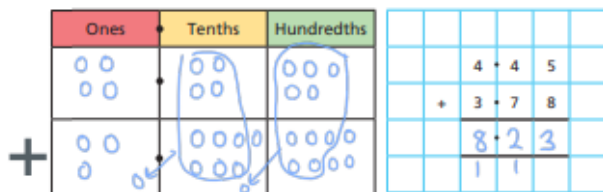
a) $4.45 + 3.21 = 7.66$



b) $4.45 + 3.61 = 8.06$



c) $4.45 + 3.78 = 8.23$



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
		7	8	

e)

		3	+	1	0	2	
		+	5	8	7	6	
		8	9	7	8		

b)

		6	+	0	3
		+	3	9	1
		9	9	4	

f)

		1	2	+	0	3	4
		+	9	2	2	7	
		2	1	2	6	1	

c)

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

g)

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

d)

		6	+	3	7
		+	6	2	6
		1	2	6	3

h)

		1	4	+	9	9	
		+	1	2	3	7	
		2	7	3	6		

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.



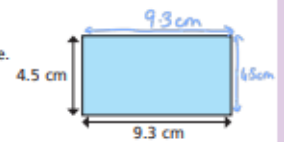
Here are his workings.

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

Talk to a partner about Teddy's mistake.

Work out the correct answer.

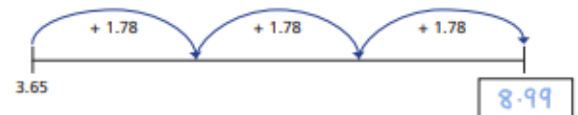
5 Work out the perimeter of the shape.



$$\begin{array}{l} 4.5 + 9.3 + 4.5 + 9.3 \\ = 9 + 18.6 \\ = 27.6 \end{array}$$

perimeter = 27.6 cm

6 Complete the number line.



7 Eva starts with the number 1.62



I added a number and got 2.8

Eva

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

Rosie



Is Rosie correct? No

Talk about it with a partner.

Thursday

Adding decimals with different numbers 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?

3.93

- b) Explain your method to a partner.

- c) Did you have to make an exchange? No

- 2 Work out the additions.

a)

		3	0	2
		+	1	6
			4	6
				2

c)

		2	8	
		+	3	4
			6	2
				5

b)

		1	3	5
		+	0	2
			1	3
				7
				3

d)

		6	1	5
		+	1	3
			2	0
				0
				5

- 5 Use the column method to work out the additions.

a) $0.59 + 11.9$

		0	5	9
		+	1	1
			2	4
				9

c) $0.591 + 1.73$

		0	5	9
		+	1	7
			2	3
				2
				1

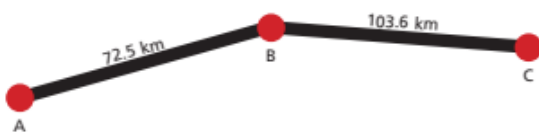
b) $77.34 + 1.82$

		7	7	3
		+	1	8
			7	9
				1
				6

d) $3.2 + 1.84 + 0.931$

		3	2	
		+	1	8
			0	9
				3
				1

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



What is the total distance that Mr Hall drives?

176.1 km

- 3 Filip is adding two numbers together.

He writes it as a column addition.

1	3	8
+	1	9
	3	3
	1	1

- a) What mistake has Filip made?

He hasn't correctly lined up his numbers in the columns.

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

		1	3	8
		+	1	9
			5	7
				5

- 4 Use the column method to work out the additions.

a) $2.36 + 1.9$

		2	3	6
		+	1	9
			4	2
				6

b) $14.82 + 3.7$

		1	4	8
		+	3	7
			1	8
				5
				2

- 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.

$11.46 + 4.19 = 15.65$

- b) What is the sum of the four numbers?

20.17

- 8 Work out the missing digits.

a) $2.43 + 1.537 = 39.67$

b) $4.85 + 7.8 = 12.65$

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

What could the mass of each box be? Various answers.

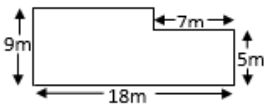


How many answers can you find?

Friday

Make sure you check BBC Bitesize for the Challenge ANSWERS

Key Skills

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Problem Solving	
1. What is the value of the 3 in this number? 2,934,765	5:1 30,000	11. Which is a common factor of 18 and 36? 3 4 5 8 10	5:8 3	21. Ben was 0.75 metres tall. Next time he got <u>measured</u> he had grown by $\frac{2}{10}$ of a metre. How tall is he now?	5:19 0.95m or 95cm
2. Write two hundred and twelve thousand, five hundred in digits.	5:1 212,500	12. Give two prime numbers between 10 and 20.	5:9 11, 13, 17 or 19	22. How many grams are there in 6.35 kilograms ?	5:20 6,350
3. Round 163,824 to the nearest thousand .	5:2 164,000	13. $3,472 \div 7$	5:10 496	23. Calculate the perimeter of this field.	5:21 54cm
4. What is the missing number? 2,465 2,365 2,165	5:2 2,265	14. 321.5×100	5:11 32,150		
5. What temperature is 12 degrees less than 2 degrees Celsius?	5:3 -10°C	15. What is 4^2 ?	5:12 16	24. Use the glass to estimate the capacity of this jug.	5:22 c
6. What number is represented by these Roman Numerals? DLXXV	5:4 575	16. $\frac{2}{3} + \frac{2}{9} =$	5:13 $\frac{8}{9}$		
7. $10,750 - 2,925 =$	5:5 7,825	17. Find an equivalent fraction of $\frac{2}{8}$.	5:14 $\frac{1}{4}$	a. 250 ml. b. 300 ml. c. 750 ml.	
8. $6,495 + 8,912 =$	5:5 15,407	18. Write $\frac{13}{5}$ as a mixed number .	5:15 $2\frac{3}{5}$	25. Sarah starts watching a film at 10.15am . The film is 145 minutes long. What time does Sarah finish watching the film?	5:23 12.40 (pm)
9. Complete this sum without written working. $7,800 + 2,500 =$	5:6 10,300	19. $\frac{3}{4} \times 20 =$	5:16 15		
10. I buy 2 CDs costing £5.90 each. How much change do I get from £15?	5:7 £3.20	20. Round 4.51 to 1 decimal place.	5:17 4.5		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	