

Y6 Remote Learning

PONTEFRACT

ANSWER PACK

22nd- 26th February 2021



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Maths Answers Lesson 1

Tormade	2 a) Complete the table.
	Number of weeks 1 2 3 5 10
	Number of days 7 1L 21 35 70
1 Scott builds a pattern using triangles and circles.	b) Complete the formula to show the relationship between days (d) and weeks (w).
	d = 7 w
	c) How many days are there in 32 weeks?
a) Draw the next diagram in the pattern.	224
०∕००∕००∕०	 a) Write a formula for the area and perimeter of the rectangle.
b) Scott records the number of triangles and circles in a table.	b) Work out the greg and parimeter of the rectangle if
Complete the table.	a = 17 cm and $b = 8$ cm
Number of triangles 1 2 3 4 5	Show your workings.
Number of circles 3 6 7 12 12	area = 136 cm ² perimeter = 50 cm
c) $c =$ number of circles and $t =$ number of triangles	
Circle the formula that describes the pattern.	 a) write a formula for the area and perimeter of the square.
$c = t + 3 \qquad \qquad c = 3t \qquad \qquad t = 3c \qquad \qquad t = 3 + c$	d area =
	b) Work out the area and perimeter of the square if $d = 8.5$ cm
d) How many circles will there be with 10 triangles?	Show your workings.
3 × 10 = 30	grad = [70,05] a parimeter = [91, a
	dred = Y4.420M perimeter = 24.0%
She records the number of squares and sticks in a table. a) Continue the pattern and complete the table.	Walkies Dog Walker £12 per hour plus £5 travel
Number of Iolly sticks, 1 4 7 10 13 16	a) How much does the dog walker charge for a 2-hour job?
b) You need 35 lolly sticks to make 10 squares. I multiplied the number needed for 2 squares by 5	b) Write a formula to show the cost (c) for (h) hours. c = 12h + 5
Show that Eva is wrong. How many sticks are needed to make 10 squares?	 The Wooden Letter Company sells wooden letters for £2 each, plus £1.50 for delivery of each order. Whitney places an order for the letters to spell out her name. How much does it cost?
c) Circle the formula that describes the pattern.	
	f 15.5
l = 3s + 1 $l = 4s + 1$ $l = 3(s + 1)$	C= 2n + 1.5





Varied Fluency 1a. p=a+b+c is a formula; 36 + 56 = 72 is a calculation. 2a. 40cm² 3a. d=2n4a. 30 children (6 x 5 = 30)

<u>Reasoning and Problem Solving</u> 1a. 10cm 2a. Various answers, for example: No; he would need to have 4 bags of flour in order to have enough, because 2 x 2 = 4. 3a.A. This shows 5 lots of water and 2 lots of bleach, which matches the formula.

Gold Answers

Varied Fluency

9a. 5(b-c) is an expression; $V = W \times h \times d$ is a formula; $a = \pi \times r^2$ is a formula; $72 = (12 \times 3) \times 2$ is a calculation. 10a. 33cm³ 11a. $a = 2n \times 0.45$ 12a. 23 (92 ÷22)

Reasoning and Problem Solving

7a. 11cm

8a. Various answers, for example:

No; the puppy needs at least 64 minutes of exercise each day, because 8 x 16 = 128; 128 ÷2 = 64. 9a. A and C. B shows everything being divided by 2, which will result in the incorrect height of the desk.

Deepen the Moment

a. Area: 7 x 1.6 = 11.2 Perimeter: 2 x 7 + 2 x 1.6 = 17.2
b. Area: 3 x 9 = 27 Perimeter: 2 x 3 + 2 x 9 = 24
c. Area: 7 x 6 = 42 Perimeter: 2 x 7 + 2 x 6 = 26
d. Area: 3 x 2.1 = 6.3 Perimeter: 2 x 3 + 2 x 2.1 = 10.2
e. Area: 1/4 x 12 = 3 Perimeter: 2 x 1/4 + 2 x 12 = 24.5



Maths Answers Lesson 2

Forming equations	A shop sells these items.
1 Match each equation to the part-whole model it represents.	
y + 7 = 18	 a) The total cost of a scarf and a book is £17 Form an equation to represent this information. 5 + 5 = 17 b) The total cost of 2 packets of balloons and a hat is £11 Form an equation to represent this information.
2y + 4 = 18	2 + b = 11 () The total cost of a pair of headphones, a scarf and 2 boxes of marbles is £39 Form an equation to represent this information. 21 + 5 + 2m = 39 Create your own problem like this for a partner.
3y = 18	3 Write equations to represent the bar models. a) 14 b) b 3 3 3 3 $2cx = 14$ b $\frac{b}{4} = 3$
c) 16 c c 10 2c + 10 = 16 Is there more than one possible equation for each?	6 Annie has a number trick. Whatever number you choose, I will make your answer be 5
4 Draw a bar model to represent each equation. a) $3a = 21$ c) $6 + 9 = c$	Step 1: think of a number Step 2: double it Step 3: add 10 Step 4: divide by 2 Step 5: take away the number you first thought of
b) $2b + 6 = 10$ d) $\frac{d}{2} = 7$	 a) Pick a starting number and follow the steps. Did you get the answer 5? b) Use multilink cubes and base 10 ones to represent each step of Annie's trick. What do you notice?
 Tommy and Rosie are thinking of a number each. Write an equation to represent each problem. I subtract 3 from my number. I get the answer 10 I have doubled my number and added 5 My answer is 19 	 c) Write an expression for each step of Annie's trick. <u>x</u> <u>2x</u> <u>2x+10</u> <u>x+5</u> <u>5</u> d) Create your own problem like this for a friend.
0m+5=19	

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Year 6 Answer Pack





<u>Varied Fluency</u> 1a. 3 and 8 2a. D 3a. *n* ÷9 = 4. It should be –. 4a. *p*÷3 = 2

<u>Reasoning and Problem Solving</u>

1a. Various answers, for example: n - 2 = 8. Bessy had some crayons. She gave 2 of them to her friend. She had 8 crayons left.

2a. Option C, as A and B both represent adding 4 to an unknown number. C represents 4 being subtracted from an unknown number.

3a. Chris is correct as his answer shows addition. Elle's equation is 13 – p = 5.

Gold Answers

<u>Varied Fluency</u> 9a. divide, 8, 9 and -6 10a. C 11a. *n* + 4 = 1 . It should be add 1 and the answer is 4. 12a. -3 = 0.25*n* -10

<u>Reasoning and Problem Solving</u>

7a. Various answers, for example: 0.75 n - 14 = -2. Leon has created an equation. He multiplies an unknown number by 0.75 and subtracts 14. His answer is -2. 8a. Option A, as it represents 2.3 -3 = 10. B and C both represent 2n + 3 = 11.

9a. Otis is correct as 0.5 is the same as 0.5 x d. Sophia's equation would be -6 = $d \div 0.5$ –22.

<u>Deepen the Moment</u> x + 8 = 10 12 - x = 10 5x = 10

20 / x = 10



Maths Answers Lesson 3

	Solve simple one-step equations Write an equation for each part-whole model. Work out the value of the multilink cube in each equation. a) b)	Maths	3 Write algebraic equations to represent the bar models. Find the value of <i>a</i> in each one. a a a a b) 15 a a b) 15 a a b) 15 a a a a a a a a a
	2 There are some counters under the cup.		Nijah is solving the equation $x - 8 = 20$ x - 8 = 20 x = 20 - 8 x = 12
	There are 10 counters in total. a) If c is the number of counters under the cup, explain why $c + 6 = 10$ b) Work out the value of c. $c = \boxed{\frac{1}{4}}$ c) How many counters are under the cup?	\bigcirc	What mistake has Nijah made? <u>She should have added R in 20</u> <u>X = 28</u> © White Rose Maths 2019
5	Solve the equations. a) $x + 7 = 20$ b) $g - 3 = 15$ x = 13 g = 18		 Dexter builds a tower. Each block is 2a high. He uses 7 blocks. The total height of his tower is 42 cm.
	b) $10y = 80$ $y = \boxed{8}$ c) $4m = 22$ c) $4m = 22$ c) $4m = 3$ c) $4m = 3$		Write an equation to represent the height of Dexter's tower and find the value of a . lua = u2 a = 3 cm
•	m = 5.5 $u = 15$		8 Work out the value of each shape. Write the equations that you solved to find the value of each shape.
•	Hip trinks of a number. He subtracts 5 from his number. He ends up with 10 Write an algebraic equation to represent Filip's problem.		$\begin{array}{c c c c c c c c c c c c c c c c c c c $
	Solve the equation to work out his number.		$\bigotimes = 10 \qquad \bigotimes = 6 \qquad \bigtriangleup = 2$ Work out the missing total of each row and column. Compare answers with a partner.

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<u>Varied Fluency</u> 1a. 11*a*= 33 2a. A 3a. >, < 4a. *p* = 29; *d* = 18; *a* = 18

<u>Reasoning and Problem Solving</u>

1a. Jonah is incorrect because 2n means $2 \times n = 20$, so n = 10. 2a. Yes; n = 5 so both cups should contain 5 counters. 3a. Various answers, for example: $3V = 3 \times 6$; 9 + 9 = 3V; 3V = 19 - 1

Gold Answers

Varied Fluency

9a. $a_2 = 30 \frac{1}{4}$ 10a. C 11a. >, = 12a. c = 52; b = 9; n = 0.2

Reasoning and Problem Solving

7a. Graham is incorrect because d_2 means $d \ge d = 1$, so d = 1; he needs to multiply d, not add it. 8a. No; although Amina has correctly shown that b = 9, she has forgotten to add 3 counters to it (as shown in the equation) to create a total of 12. 9a. Various answers, for example: 27.5 $\ge 2 - 1 = d_{2} + 5$;

Deepen the Moment

Using the given heights of the sunflower A and B, we can find the value of x: x + 25 = 73cm x = 73 - 25 x = 48cm

We can now find the height of sunflower D: 100 – x = ? 100 – 48 = 52cm

Now that we know the height of sunflowers A, B and D, we can subtract these from the total height of 235cm to find the height of sunflower C: 235cm – 198cm = 37cm

Sunflower C is 37cm in height.



Maths Answers Lesson 4

Solve two-step equations	Maths 3 There is the same number of counters under each cup.
Solve two-step equations	There are 16 counters in total.
1 Here is a part-whole model.	a) Use y to represent the number of counters under each cup. Write an equation in terms of y. 2y+4=16
a) Write an equation for the part-whole model.	b) Solve the equation to find the value of y.
<u>20. + 4 ≈ 20</u>	
b) Solve the equation to work out the value of the solution of	y = 6 c) How many counters are under each cup?
2 If each multilink cube represents x , form and solve an equation to find the value x .	Write an algebraic equation to represent each bar model. Find the values of a and b . a) 21 b) 46 a a 9 $3b$ 10
8 8 8 12 x = 12	a = 6 $b = 12$
Solve the equations. a) $5x + 1 = 31$ d) $9 = 2y + 8$	 Alex is y years old. Her friend Brett is 3 years older. The total of their ages is 25 How old are Alex and Brett?
x = 5 b) $3x - 3 = 9$ e) $10g - 2 = 46$	Alex is 11 Brett is 14
$x = \begin{bmatrix} l_4 \\ g \end{bmatrix}$ c) $4p - 11 = 3$ f) $4 + 3y = 28$	
$p = \boxed{3.5}$ $y = \boxed{8}$	£1.52 £1.20 a) Work out the cost of one banana and one orange.
 6 Dani thinks of a number. She doubles it and adds 3 She gets the answer 15 a) Write an equation to represent Dani's problem. 2x + 3 = 15 b) Solve the equation to find her number. 	One banana costs 32 One orange costs 28 One banana costs 32
6	

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Varied Fluency



4a. -4; ÷3

Reasoning and Problem Solving

1a. Various answers, for example:

x+ 3 = 9; 21 -2x = 9; 6x ÷ 4 = 9

2a. Various answers, for example: if y = 4, then 2y - 1 = 7; if y = 5 then, 2y - 3 = 7, if y = 6, then 2y - 5 = 7.

3a. Mia is correct because you can take 5 away from both sides, leaving 2x + 1 = 19; 19 –1 = 18 and 18 ÷2 = 9.

Gold Answers

Varied Fluency

11a.

9a. True; False, 3*y* ÷ *y* = 3; False, 7 –*z* = 3 10a. 60



12a. -6.3, ÷28

Reasoning and Problem Solving

7a. Various answers, for example:

 $10x - 2.5 = -0.5; 5x \times 1.5 = 1.5; -0.5 + 10x = 1.5$

8a. Various answers, for example: Calculation A: if *y* = 3.25, 14*y* ÷ 7 = 6.5; 12*y* ÷ 6 = 6.5; 10*y* ÷ 5 = 6.5; Calculation B: 2*y*−9 = -2.5; 3*y*−12.25 = -2.5; 4*y*−15.5 = -2.5

9a. Priya is correct because 21 x 0.5 = 10.5 and 10.5 –11.5 = -1. Alex is incorrect because subtracting a decimal number does not mean you cannot get a whole number for the answer.





Deepen the Moment

Using the given lengths of pencil A and B, we can find the value of x: 5x + 4 = 34cm 5x = 34 - 4 5x = 30cm x = 30 / 5x = 6cm

Now that we know the value of x, we can find the length of pencil D: 4x + 25 = ?(4 X 6) + 25 = 49cm

Now that we know the lengths of pencils A, B and D (34 + 34 + 49 = 117), we can subtract these from the total length of 139cm to find the length of pencil C: 139cm – 117cm = 22cm

Pencil C is 22cm long



Maths Answers Lesson 5 (twinkl Arithmetic Paper 3)

	Question	Answer	Mark	Additional Guidance	
1	37 + 749	786	1m		
2	$\frac{6}{7} - \frac{2}{7}$	4 7	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.	
3	2 × 35	70	1m		
4	908 ÷ 1	908	1m		
5	55÷11	5	1m		
6	8 × 3 × 10	240	1m		
7	7,015 - 403	6,612	1m		
8	10 - 3 ²	1	1m		
9	39.55 + 8.7	48.25	1m		
10	? - 20 = 286	306	1m		
11	320 ÷ 4	80	1m		
12	8,100 ÷ 9	900	1m		
13	90 ÷ 30	3	1m		
14	? = 2,863 - 457	2,406	1m		
15	3,700,009 = 3,000,000 + ? + 9	700,000	1m		
16	10 - 5.9	4.1	1m		
17	$\frac{2}{7} + \frac{15}{28}$	<u>23</u> 28	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.	
18	0.7 ÷ 100	0.007	1m	Accept equivalent fractions.	
19	$\frac{3}{4}$ of 1,600	1,200	1m		
20	528 × 26	13,728	2m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens.	
21	15% of 1,300	195	Im	Do not accept answers with the percentage symbol	

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	Question	Answer	Mark	Additional Guidance
22	874 ÷ 46	19	2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm and be a complete method. The carrying figure must be less than the divisor.
23	0.2 × 35	7	1m	
24	$\frac{2}{3} + \frac{1}{4}$	11 12	1m	Accept equivalent fractions or the exact decimal equivalent.
25	$1\frac{5}{8} + \frac{1}{2}$	2 <u>1</u> 8	1m	Accept equivalent mixed numbers, fractions or the exact decimal equivalent.
26	8 - 7.109	0.891	1m	
27	3.7 × 70	259	1m	
28	$1\frac{1}{6} - \frac{7}{12}$	7 12	1m	Accept equivalent fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
29	6,926 × 64	443,264	2m	Working must be carried through to reach a final answer for the award of ONE mark. Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens.
30	99% of 600	594	1m	Do not accept answers with the percentage symbol
31	$\frac{1}{4} \div 3$	1 12	1m	Accept equivalent fractions or the exact decimal equivalent.
32	5 × 7 - 4 ²	19	1m	
33	1 1/3 × 30	40	1m	Do not accept unsimplified equivalent fractions.
34	62% of 340	210.8	1m	Do not accept answers with the percentage symbol
35	5 5 - 3 <u>3</u>	2 <mark>1</mark> 12	1m	Accept equivalent mixed numbers, fractions or an exact decimal equivalent (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
36	6,916 ÷ 76	91	2m	Working must be carried through to reach a final answer for the award of ONE mark. Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm and be a complete method. The carrying figure must be less than the divisor.

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English Answers Lesson 1:

1. Early morning/before sunrise, because it says in the text it was still dark.

2. She is referring to the people who have been bombed in Battersea and feels sympathy for them.

3. It suggests that many people were dying and it was not an unusual incident.

4. He could see that he was not alone in feeling miserable or sad.

5. Disagree. It says in the text they pushed and jostled in the carriage. Other evidence acceptable.

6. Any answer which suggests an emotion and supports it with relevant information from the text. For example: Upset, because it says in the text, 'He blinked back the tears that had gathered in his eyes and wiped his face before turning towards the station.' Anxious/nervous/unsure, because it says in the text, 'David watched the last Highbury and Islington sign as long as he could, craning his neck until the carriage plunged into the darkness of the tunnel and it was gone.'

	Embedded	Relative
Reece, even though he hated films, still went to the cinema.	X	
The crocodile, which had been lurking under the water,		V
pounced on its prey.		^
The Eiffel Tower, which is one of the most famous landmarks		v
in the world, is in Paris.		^
The boy, as fast as he pedalled, could not catch up with his	×	
friends.	^	
Liverpool FC, who are the current Premiership champions, are		~
struggling this year.		^

English Answers Lesson 2:



Lesson 3:

(Send a list of facts that you have found to your teacher)

English Answers Lesson 4:



Lesson 5:

(Draft your opening and send it to your teacher for feedback)

Reading for Productivity Answers: Lesson 1 Geography

1. ... they will simply remain indefinitely until removed by humans...

Which of these is the most accurate definition for the word indefinitely? Tick one.

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O globally problematic

- Ø for the foreseeable future
- O restricted from view
- O negatively impactful
- 2. Match the sub-heading to the best summary of its contents.



- ...and could be endangering the existence of some of our much-loved species. Define the word endangering based on its use in this sentence.
 Pupils' own responses, such as: Endangering means putting something at risk or in danger.
- What percentage of plastic produced over the last 70 years has been thrown away?
 79% of plastic produced over the last 70 years has been thrown away.
- Which creature may birds mistake plastic bags for?
 Birds may mistake plastic bags for fish.
- Fully explain how plastic pollution endangers Britain's wildlife.
 Pupils' own responses, such as: Plastic pollution can harm wildlife because creatures may become tangled in waste, eat the plastic by mistake and become poisoned by the chemicals in the plastic.



- ACADEMIES TRUST
- Plastic pollution is a global problem. Propose three steps which could be taken globally to reduce plastic pollution.

Pupils' own responses, such as: All single-use plastic items, such as straws and cutlery, could be banned globally. They could remove the use of plastic items and bottles from all international flights. Also, world leaders could meet to discuss measures to reduce plastic production and promote recycling.

- Summarise what is meant by microplastics in 15 words or less.
 Pupils' own responses, such as: Microplastics are tiny pieces of plastic that have been broken down from larger pieces.
- Comment on one change you have already made and one change you will make in the future in order to reduce plastic pollution.

Pupils' own responses, such as: One change I have already made is that I have started refilling a water bottle instead of buying more bottled water. One change I will make in the future is that I will take my own bag to the supermarket instead of buying more plastic carrier bags.

10. Summarise the purpose of this text and its intended audience.

Pupils' own responses, such as: I think that this text is intended for a young audience, especially children who are interested in wildlife and the environment. Its purpose is to inform them of the hazards of plastic pollution and to help them to make changes for the better to help the environment.

Reading for Productivity Answers: Lesson 2 R.E

1) What will happen to those who have lived good lives and believed in God? They will have a place in heaven?

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2) Where will the Son of Man sit? On his glorious throne.

3) Which of these is closest in meaning to the **eternal fire**?

Heaven Hell Earth Jerusalem

4) According to the text, what are goats like? They are stubborn and resist being told what to do.

5) What do you think is meant by 'The kingdom prepared for you since the creation of the world.' The kingdom of Heaven.

- 6) Answer these true or false questions.
 - a) The sheep are put on the right and the goats on the left. T
 - b) The sheep will go to Hell. F
 - c) The Goats are the ones that helped others in their lives. F
 - d) In the story, it is better to be a sheep than a goat. T

7) Why are God's people often described as sheep? Because sheep listen to their shepherd and follow him.

8) What are the similarities between God and a shepherd? E.g. A shepherd looks after his sheep as God looks after the faithful.

SEND Answers

- 1) Which of these words is closest in meaning to **parable**? Story
- 2) In the story, the goats will go to heaven. False

3) What things does Jesus say people should offer to one another? Food, drink, shelter and clothes

4) According to the text, what are goats like? Stubborn

5) What is the story about? Judgement



Reading for Productivity Answers: Lesson 3 D.T

- 1. What was the first item to be rationed in WW2? Petrol
- 2. Which food types were exempt from rationing? Bread
- 3. Why was rationing introduced? Rationing was introduced to make sure that everyone had a fair share of the items that were hard to get hold of during the war
- 4. How long did rationing in the UK last for? 14 year
- 5. What was the final item to be rationed in 1954? Meat
- 6. What is a commodity? A product / the goods
- 7. Find and copy a phrase which means to increase the price. inflated

8. What colour book did pregnant women have? How was their ration different from others? Green ration books - Pregnant women, nursing mothers and children under 5. They had first choice of fruit, a daily pint of milk and a double supply of eggs.



Reading for Productivity Answers: Lesson 4 Science

1) What does the word drag mean?

Drag is when friction is used to slow things down that are moving through water.

2) Which word describes how the particles make contact?

Collide

3) How does the density of the water affect the movement of an object in water?

The more dense the water, the greater the drag force.

4) Why do you think that **water resistance** increases if your body is completely submerged in the water?

It increases because moving through air resistance allows a better speed of movement than water resistance.

5) Why do penguins find it easy to swim through the water?

Penguins are able to glide through the water with little water resistance because they are slim and have bullet-shaped bodies.

6) Name another animal which is able to glide through the water with little water resistance. Explain why this is. Various answers the refer to the streamlined shape of the body.



Reading for Productivity Answers: Lesson 5 Computing

- 1 1955 2011
- 2 For his time as chairman and co-founder of Apple
- 3 A pioneer of the computer revolution of the 1970s and 1980s
- 4 In 1974 / Seeking enlightenment and studying Buddhism
- 5 Jobs co-founded Apple in 1976 with Steve Wozniak / Released Apple II computer / In 1984 released Macintosh computer (any 2 for 2 marks)
- 6 A long power struggle with the company's board
- 7 NeXT & Pixar
- 8 Because NeXT merged with Apple in 1997
- 9 The iMac, iTunes, the iPod, the iPhone and the iPad

10 – A pancreatic neuroendocrine tumor 11 – From factors relating to the tumor at the age of 56



