11  $3p^2 = 48$ 

12 Express 42 as a product of

Approximate 3098mm to the nearest centimetre.

A	Ans	wer			
1	Write down the product of 142 and 9.	1278			
2	(72 + 56) ÷ (72 – 56) =				
3	Write in digits nineteen hundred and eight.	1908			
4	Arrange in ascending order:				
	$\frac{3}{4}, \frac{2}{3}, \frac{4}{5}, \frac{5}{8}, \frac{1}{2} \qquad \qquad \frac{1}{2} < \frac{5}{8}, < \frac{2}{3}, \frac{2}{3}$	$< \frac{3}{4} = \frac{4}{5}$			
5	Divide 147 in the ratio 2:5.	: 105			
6	0.705 + 0.09 + 1.03 =	1.825			
: 7	0.4 × (4 – 0.08) =	1.568			
8	Round 16.2534865 to the nearest ten thousandth.	16,2535			
9	Calculate correct to three decimal places. 2.43 ÷ 9	0.270			
10	If $x = 2$ , $y = 3$ , $z = 5$ , find the value of $x^2 + y^2 + z^2$ .	38			

12	three prime numbers		$2 \times 3 \times 7 = 42$		
B			Answer		
1	Share £115 in the rati	o 3:2.	f69 :f46		
2	I buy a box of 48 ora £5 and sell them at 1 What is my profit?		£2,20		
3	10cm is approximate	ly	4in		
4	1ha =		10 000 m²		
5	Which of these years 2nd millennium BCE? 2850 BCE, 1725 BCE,		. 1725 BCE		
6	How long will it take to travel 2000m at 120km/h?		1min		
. 7	Abdul runs 100m in 12.5s. What is his mean (average) speed in m/s?		8m/s		
8	At what angle do the diagonals of a kite cross each other?		90°		
9		What is the order of rotational symmetry of this shape about its centre?			

	Schofield & Sims	
Answer	C Answer	
142 and 91278	Daisy and Charlie play a game with spinners.	
	2 3	-
1908	$\begin{bmatrix} 2 & 3 \\ 1 & 4 \end{bmatrix}$	
$\frac{5}{8} \cdot \frac{2}{3} \cdot \frac{3}{4} \cdot \frac{4}{5}$	$\begin{bmatrix} 1 \\ 6 \end{bmatrix} \begin{bmatrix} 4 \\ 5 \end{bmatrix} \begin{bmatrix} 8 \\ 7 \end{bmatrix} \begin{bmatrix} 5 \\ 6 \end{bmatrix}$	
42 : 105		
1,825 1,568	Daisy's Charlie's Spinner Spinner	
nearest 16.2535	Express your answers as fractions in their lowest terms.	
0.270	1 What is the probability of Daisy spinning a 6?	
ne value , 38 so <i>p</i> = 4	2 What is the probability of	-
, 2 ×, 3 × 7, = 42	3 What is the probability of Daisy not spinning a 6? $\frac{5}{6}$	
Answer £69 :£46	4 What is the probability of Charlie not spinning a 6?	
or ch. <u>£2.2</u> 0	5 What is the probability of Daisy spinning an odd number?	
4in	6 What is the probability of Charlie not spinning an odd number?	
10000m² n the	7 What is the probability of Daisy spinning either a 5 or a 6?	
BCE1725_BCE	8 What is the probability of Daisy spinning a number greater than 4? $\frac{1}{3}$	
vel 1min	9 What is the probability of Charlie spinning a number greater than 4? $\frac{1}{2}$	
What is n m/s? 8 <u>m/s</u> onals of	10 What is the probability of Charlie spinning a number less than 4? $\frac{3}{8}$	
e is the order tational netry of this	11 What is the probability of Charlie spinning either a number greater than 4 or a number less than 4?	
e about ntre?	12 Explain why the answer to question 11 is less than 1.	

It does not include the probability

of spinning exactly 4.

II ee iArwaaanoo/zoonfod	Mer	ntal Arithmetic 6 Answers
A A A A A A A A A A A A A A A A A A A	A	
	1	Write down the sum of 526 and
	2	$((15 + 45) \div 3) \div 2 =$
	3	Write in digits forty-six thousan and forty-six.
	4	$33\% > \frac{1}{3}$ True or false?
	5	Reduce 120 by $33\frac{1}{3}\%$ .
-	6	2.2 × 0.03 =
	7	$\frac{8.4}{0.3 + 0.4} =$
	8	Round 0.00985 to the nearest thousandth.
	9	Estimate to the nearest ten. $\frac{48.9}{2}$
Assertance	10	If $m = 4$ , $n = 5$ , $q = 6$ , find the value of $m(q^2 - n^2)$ .
	11	$\sqrt{r} = 9$ · s
	12	Write down the prime factors of
	B	
	1	If 45 envelopes cost £1.35 how much is this per envelope?
	2	Calculate the interest at 7.5% cloan of £4000.
	3	60cm is approximately
Section of the sectio	4	32km is approximately
occosto contantinaminamina	5	In a race Molly beat the previous school record of 23.17s by $\frac{31}{100}$ s What was Molly's new time?
Associated designation of the second	6	How long will it take to travel 42km at 18km/h?
orania, apotentia es establica na co	7	A tank of volume 9m³ has a sq base of side 1.5m. How tall is the tank?
organization of the control of the c	8	These are similar rectangles. Fir
ikikikanokalikaa mukkikiki. Istoria suoma muutuu kun kun kun muun muun muun muun muun		72mm 32mm <i>x</i> cn
ojajaji popokojaja (myspokojaja kojajada užininka ji estoloko.	9	What is the number of axes of symmetry of this shape?
	10	Approximate 355in to the nearest yard.

	Answer	(c)				Answer
Write down the sum of 526 and 625.		The table shows a spreadsheet that				
$((15 + 45) \div 3) \div 2 =$ 10		Ella used to investigate the angle properties of regular polygons. Two				
Write in digits forty-six thousand and forty-six.	46046	cells are empty. The diagram of a hexagon shows how Ella labelled the centre and interior angles.				
$33\% > \frac{1}{3}$		ciic	contro and an	.cr,or arigids.	and a second	
True or false?	false		А	В	С	D
Reduce 120 by $33\frac{1}{3}\%$ .	80	1	Number of sides, N	Centre angle, C	Interior angle, V	Sum of interior angles
2.2 × 0.03 =	0.066	2	3	120	60	180
$\frac{8.4}{0.3+0.4} =$	. 12	3	4	90	90	360
Round 0.00985 to the		4	· 5	72	108	540
nearest thousandth.	0,010	5	6	60	120	720
Estimate to the nearest ten. $\frac{48.97 \times 52.6}{25.12}$	100	6	7	51.4	128.6	900
		7	8	45	135	1080
If $m = 4$ , $n = 5$ , $q = 6$ , find the value of $m(q^2 - n^2)$ .	44	8	9	40	140	1260
.,		9	10	36	144	1440
$\sqrt{r} = 9$ so $r = $ Write down the prime factors of 20.		1	Which row of the spreadsheet represents a hexagon?			
	Answer		·	_		- in-
	Anbwei	2	What shape			square
If 45 envelopes cost £1.35 how much is this per envelope?		row 3 of the spreadsheet?  The formula used in the spreadsheet				
Calculate the interest at 7.5% on a loan of £4000.	£30 <u>0</u>		to calculate the angle at the centre of a hexagon was 360 ÷ A5. What value does this give for the centre angle?  4 Into which empty cell should this			60
60cm is approximately	2ft	_				
32km is approximately	20 miles	4	value be ente		ould this	B5
In a race Molly beat the previous school record of 23.17s by $\frac{31}{100}$ s. What was Molly's new time?	22.86s	5	What formul centre angle			360 ÷ A9
How long will it take to travel 42km at 18km/h? 2h 20min		6	To find the interior angle of a pentagon the formula 180 – 84 was used. What value of angle does this give?			
A tank of volume 9m³ has a square base of side 1.5m. How tall is		7	Into which e	mpty cell sho		
the tank?	4m		this value be entered?			C4
These are similar rectangles. Find x.	9.6cm 21.6cm	8	What formula was used in the spreadsheet to find the interior angle of a seven-sided heptagon?			180 – 86
32mm xcm		9	What value in the formula		using	1440
		10	Which cell co	ontains this v	alue?	Do
What is the number of axes of symmetry		11	What does t	his value ren	resent?	
of this shape?	Prom.	£ 1				igles of decagon
Approximate 355in to the nearest yard.	10yd	12	What formu	la was used i	to find the sun	
•						

310cm