

1. Find the two numbers which multiply together to make 30 and add together to make 17.

----- [2]

2. Write numbers in the boxes below to make the statement true.

$$15 \times 20 = 5 \times \square = 6 \times \square$$

[2]

3. Peter says



The sum of *an* odd number and *an* even number is even.

The example  $3 + 4 = 7$  shows that Peter is **not** correct.

Write an example to show that this statement is **not** correct.

Squaring a whole number always results in *an even* number.

----- [1]

4. The product of three numbers is 312.



Two of the numbers are 3 and 13.

What is the third number?

----- [3]



5(a). Work out.

$$926 - 382$$

----- [1]



(b).  $517 \times 16$

----- [2]

6. Choose from this list

17	18	25	28	39	72
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two numbers with a difference of 14,

----- and -----

[1]

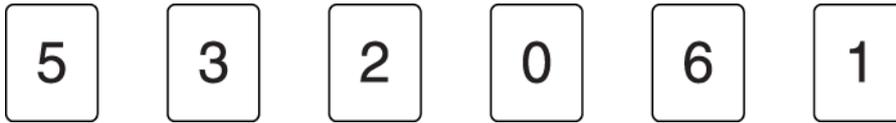
7. Two numbers have a sum of 4 and a difference of 18. One of the numbers is positive and the other is negative.

Find the two numbers.

----- and -----

[2]

8(a). Sam has these number cards.



Complete the following problems using Sam's number cards.

$$7 \times \square = 42$$

[1]

(b).

$$3 - \square = -2$$

[1]

(c).

$$\square 0 \div \square = \square$$

[2]

(d).

$$54 + \square \square = 80$$

[1]

9(a). Work out.



$$872 + 236$$

----- [1]



(b).  $629 - 447$

----- [1]



(c).  $254 \times 32$

----- [3]



10. Complete these calculations.

$$41 + \square = 100$$

$$100 - \square = 72$$

$$7 \times 9 = \square$$

$$54 \div 9 = \square$$

[2]

11. Complete the following statements.

(i)  $6 - \square = -2$

[1]

(ii)  $-3 - \square = 8$

[1]



12. Sukrit and Anna are playing a game called 'Make 100'.

Sukrit says a 2-digit number.

Anna says the number that has to be added to this to make 100.

For example, if Sukrit says 60, Anna says 40 as  $60 + 40 = 100$ .

Complete these two games.

Sukrit says 36, Anna says \_\_\_\_\_

Sukrit says 81, Anna says \_\_\_\_\_

[1]

13. Work out.

(i)  $8 \div 100$

(i) \_\_\_\_\_ [1]

(ii) 
$$\frac{8 + 9}{-2}$$

(ii) \_\_\_\_\_ [1]

(iii)  $4 + 8 \times 3$

(iii) \_\_\_\_\_ [1]

**END OF QUESTION PAPER**

Question			Answer/Indicative content	Marks	Part marks and guidance	
1			2 and 15	2	Mark final answer <b>M1</b> for a pair as final answer that either multiplies together to 30 or adds to 17  <b>Examiner's Comments</b>  Was well attempted by most candidates with many correct answers. Those who did not earn 2 marks usually scored the part mark for a pair of values which multiply together to make 30, usually 3 and 10 or 5 and 6.	For M1, accept non-integers or negatives
			<b>Total</b>	<b>2</b>		
2			60 50	2	<b>B1</b> for each	
			<b>Total</b>	<b>2</b>		
3			An odd integer squared with correct result	1	e.g. $5^2 = 25$	
			<b>Total</b>	<b>1</b>		
4			8	3	<b>M1</b> for dividing by 3 or 13 <b>M1</b> for dividing by remaining factor	<b>M1</b> for multiplying 3 by 13 <b>M1</b> for dividing by 39 or listing multiples of 39
			<b>Total</b>	<b>3</b>		
5	a		544	1		
	b		8272	2	<b>M1</b> for full correct method with one arithmetic mistake	
			<b>Total</b>	<b>3</b>		
6			39 and 25	1	Accept in either order  <b>Examiner's Comments</b>  This question was well answered with the majority of candidates giving the correct value.	

Question			Answer/Indicative content	Marks	Part marks and guidance	
			Total	1		
7			-7 and 11	2	B1 for a pos and neg value with a sum of 4 or a difference of 18	<p><b>Examiner's Comments</b></p> <p>This proved very challenging although many were able to give a negative and positive integer that had a sum of 4 or a difference of 18 to gain partial credit.</p> <p>For those that obtained the correct answer, trial and improvement was a successful strategy used.</p>
			Total	2		

Question		Answer/Indicative content	Marks	Part marks and guidance	
8	a	6	1	<b>Examiner's Comments</b> Very well answered.	
	b	5	1	<b>Examiner's Comments</b> This proved difficult for some with a common error of 1 sometimes given.	
	c	3 and 5 and 6 or 3 and 6 and 5 or 1 and 2 and 5 or 1 and 5 and 2	2	<b>B1</b> for a correct multiplication shown in working eg $5 \times 2 = 10$  <b>Examiner's Comments</b> Answers were more varied, there were several correct options for candidates to choose and many were successful. A number invented their own cards however in this part and gave a calculation that worked, but not with the cards provided.	Allow <b>B1</b> for a correct answer using <i>their</i> cards
	d	2 6	1	<b>Examiner's Comments</b> Very well answered.	
		<b>Total</b>	<b>5</b>		

Question		Answer/Indicative content	Marks	Part marks and guidance	
9	a	1108	1	<b>Examiner's Comments</b> This was usually answered correctly especially by the majority who used the column method for addition.	
	b	182	1	<b>Examiner's Comments</b> Weaker candidates often failed to cope with the need to "borrow" and simply subtracted the smaller digits from the larger digits to arrive at 222.	
	c	8128	3	<b>3M2</b> for any complete method with 1 arithmetic error or <b>M1</b> for any complete method with 2 arithmetic errors  <b>Examiner's Comments</b> This part was answered using many different methods other than the traditional long multiplication (including Napier's Bones and various different applications of a grid method). It has to be said that these "newer" methods are relatively successful although many marks were lost through errors in the simple arithmetic required to complete the grids or through a failure to sum the various components correctly.	Do not condone conceptual errors
		<b>Total</b>	<b>5</b>		

Question			Answer/Indicative content	Marks	Part marks and guidance	
10			59 & 28 63 & 6	2	B1 for 3 correct  <b>Examiner's Comments</b>  Most candidates made a confident start to the paper with few mistakes seen. The few errors which occurred were usually in the tens digit or applying the wrong operation such as adding instead of subtracting.	
			<b>Total</b>	<b>2</b>		
11		i	8	1		
		ii	-11	1	<b>Examiner's Comments</b>  Part (i) was answered very well but part (ii) caused difficulty and required a more problem solving approach. The common error was to give the answer 11 rather than -11.	
			<b>Total</b>	<b>2</b>		
12			64, 19	1	<b>Examiner's Comments</b>  This was generally well answered with only the weakest slipping up.	
			<b>Total</b>	<b>1</b>		

Question			Answer/Indicative content	Marks	Part marks and guidance	
13		i	0.08 or $\frac{2}{25}$	1	<p><b>Examiner's Comments</b></p> <p>This part was usually well answered.</p>	
		ii	$-8.5$ or $-8\frac{1}{2}$	1	<p><b>Examiner's Comments</b></p> <p>However, in this part quite a few candidates got the calculation wrong, with 15 (coming from <math>8 + 9 - 2</math>) and 3.5 (from <math>8 + 9 \div -2</math>) being common wrong answers.</p>	
		iii	28	1	<p><b>Examiner's Comments</b></p> <p>Similarly, 36 was a common error in this part.</p>	
			<b>Total</b>	<b>3</b>		