

# 11+ Maths

## Practice Paper 3

60 minutes

### Instructions:

You have 60 minutes to attempt all questions

Calculators must **not** be used

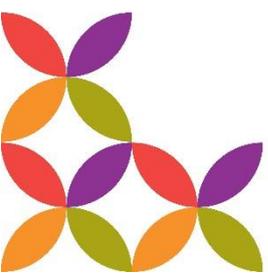
Show all your working out on this paper

There are 100 marks in total for this test

# 11+

**Date:**

**Score:**



**1. Calculate:**

(i)  $935 + 386$

Answer \_\_\_\_\_ [2]

(ii)  $742 - 349$

Answer \_\_\_\_\_ [2]

(iii)  $659 \times 8$

Answer \_\_\_\_\_ [2]

(iv)  $384 \div 6$

Answer \_\_\_\_\_ [2]

(v)  $3.8 - 2.97$

Answer \_\_\_\_\_ [2]

**2. Fill in the missing numbers from these sequences:**

(i) 64, 73, 82, 91, \_\_\_\_\_, \_\_\_\_\_

[2]

(ii) 85.3, 82.6, \_\_\_\_\_, 77.2, \_\_\_\_\_

[2]

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**3. Circle all the multiples of 6:**

42	36	6	14
48	1	24	3

[3]

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4. Subtract  $5 + (4 \times 12)$  from  $(9 + 4) \times 11$

Answer \_\_\_\_\_ [2]

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5. Rearrange these amounts from smallest to largest:

24%

0.0024

0.024

0.241

$\frac{42}{200}$

Answer \_\_\_\_\_ [2]

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6. Fill in the missing number:

$$\frac{3}{7} + \frac{\square}{5} = \frac{29}{35}$$

[2]

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7. Fill in the missing number;

$$(6 \times \dots) + (3^3 \times 5) = 267$$

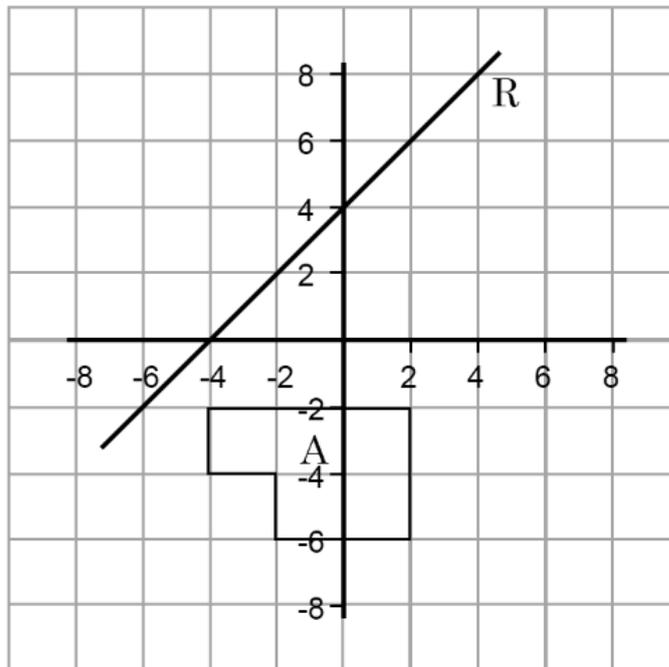
8. What is halfway between

$$\frac{17}{26} \text{ and } \frac{18}{26} \quad ?$$

Answer \_\_\_\_\_ [2]

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9. Look at the diagram below:



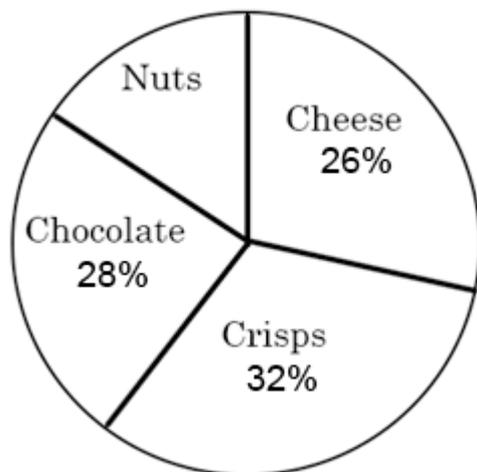
(i) Translate shape A by (3,2) to create shape B. What are the co-ordinates of the top right hand corner of shape B?

Answer \_\_\_\_\_ [2]

(ii) Reflect the new shape B in the line R to create shape C. What are the coordinates of the top left hand corner of shape C?

Answer \_\_\_\_\_ [2]

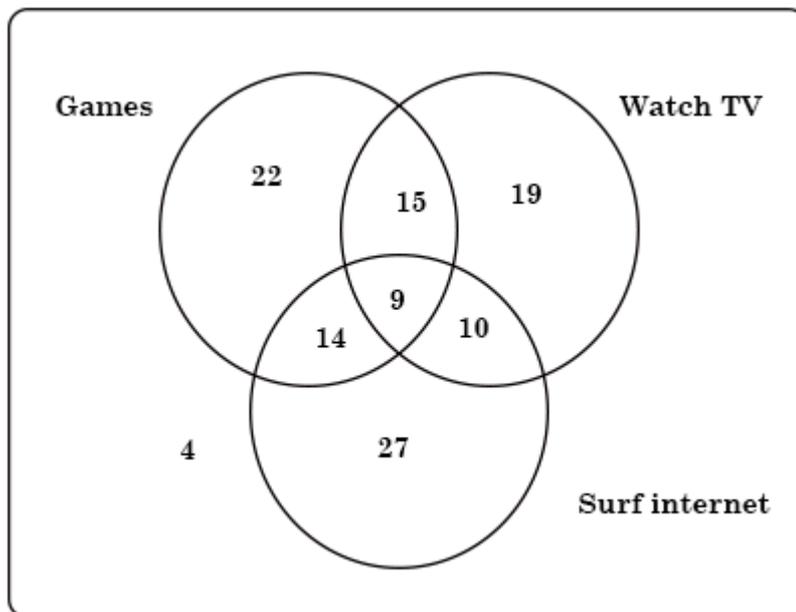
10. A group of people were asked what their favourite after dinner snack was and the results represented in this pie chart. 112 said Chocolate. How many said Nuts?



Answer \_\_\_\_\_ [3]

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11. A group of people were asked how they like to relax in their spare time and the results shown in this Venn diagram. What fraction of people liked only two of the ways of relaxing?



Answer \_\_\_\_\_ [3]

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12. (i) The area of a square is  $961\text{cm}^2$ . What is the length of the square?

Answer \_\_\_\_\_ [2]

(ii) The width of a rectangle is  $14\text{cm}$  and its area is  $644\text{cm}^2$ . What is the length of the rectangle?

Answer \_\_\_\_\_ [2]

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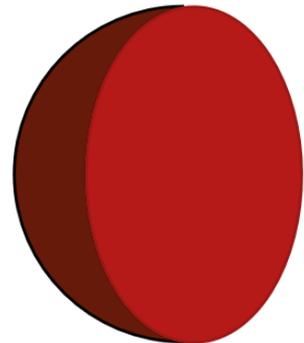
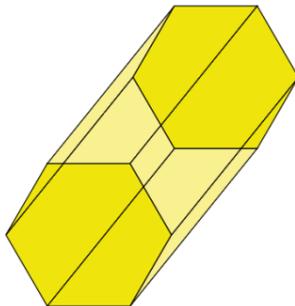
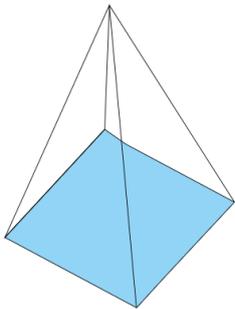
13 (i) How many lines of symmetry does a trapezium have?

Answer \_\_\_\_\_ [2]

(ii) How many lines of parallel sides does a regular pentagon have?

Answer \_\_\_\_\_ [2]

(iii) Write the names of these 3D shapes on the line underneath:



\_\_\_\_\_

[6]

**14. Sharon is running the local netball club. She works out that the money in pounds that the club gains from a match day is  $4a + 6b + 5c$ . Where  $a$  is the number of match programmes sold,  $b$  is the number of paying fans and  $c$  the number of rolls they sell.**

(i) If there are 32 programmes sold, 40 fans and 17 rolls bought, how much money does the club make on that match day?

Answer \_\_\_\_\_ [3]

(ii) At the next match there are 50% more programmes sold and 20% more fans but the same number of rolls bought. How much money does the club make on this match day?

Answer \_\_\_\_\_ [3]

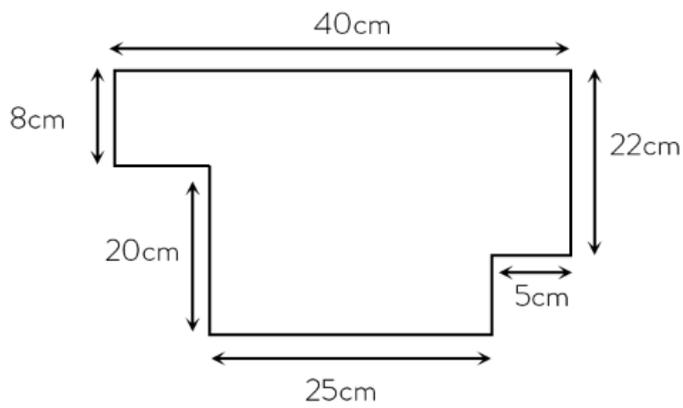
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**15. There are 11 players in a cricket team and they all batted in a match. 5 players scored a total of 30 runs and the rest a total of 47 runs. What was the mean score per player?**

Answer \_\_\_\_\_ [2]

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16. Consider this shape:



(i) Calculate the area of the shape

Answer \_\_\_\_\_ [2]

(ii) What is the perimeter of the shape?

Answer \_\_\_\_\_ [2]

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17. Dave is doubling the height of his model tower every day. On Monday it is 8cm tall. On what day will it become taller than 1 metre?

Answer \_\_\_\_\_ [2]

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**18. Virat is looking at some savings accounts:**

<b>BANK</b>	<b>INTEREST RATE PER YEAR</b>	<b>INTEREST RATE PER YEAR</b>
A	3% on the first £10,000	5% on all savings above £10,000
B	5% on the first £10,000	4% on all savings above £10,000
C	10% on the first £10,000	2% on all savings above £10,000

- (i) Virat has £17,000 to put in his savings account. Fill out the table below and show what he would have in his savings account after a year with each bank.

<b>BANK</b>	<b>SAVINGS AT START</b>	<b>SAVINGS AFTER 1 YEAR</b>
A	£17,000	£.....
B	£17,000	£.....
C	£17,000	£....._

[6]

- (ii) If Virat had £30,000 to put in a savings account, now fill in this table:

<b>BANK</b>	<b>SAVINGS AT START</b>	<b>SAVINGS AFTER 1 YEAR</b>
A	£30,000	£.....
B	£30,000	£.....
C	£30,000	£....._

[6]

19. The four students are all members of at least one social club at university. There are five different clubs available and two of the students are members of four clubs. Toni is the only one who is a member of Drama Club and she is also a member of three other clubs. Phoebe is the only one who is not a member of the Film Club, but is a member of three clubs - Chess Club, Football Club and Gourmet Club. Dave is the only one who is not a member of the Gourmet Club, but he is a member of two clubs - the Football Club and the Film Club. Georgia is the other member of four clubs. Only two of the friends are members of the Chess club.

- (i) Fill out the table below using the information you are given above. Make sure you work out exactly which clubs each student belong to.

Pupil	Drama	Film	Chess	Football	Gourmet
Toni	✓				
<b>TOTAL</b>					

[6]

- (ii) Which club is the most popular?

Answer \_\_\_\_\_ [2]

- (iii) Which club is the least popular?

Answer \_\_\_\_\_ [2]

- (iv) A new student, Jacob, becomes friends with Phoebe and Dave and joins all the clubs that they belong to. How many clubs does he join?

Answer \_\_\_\_\_ [2]

20. There were five ticket windows at the stadium and the smallest queue had twenty-one people. Window 1 had twice as many as Window 3. All of the queues had an even number of people except Window 3. Window 4 had two people fewer than Window 1. Window 2 had twenty-two people fewer than Window 5, which had fourteen more people than Window 4.

(i) Fill out the table below using the information you are given above.

Window	People in queue
1	
2	
3	
4	
5	

[5]

(ii). Ten people leave the queue in Window 5 and join the queue in Window 2. Which Window now has the most people in the queue?

Answer \_\_\_\_\_ [2]

(iii) Then twenty one people leave the queue in Window 1. One joins Window 3 and the rest join Window 2. Which queue is now the smallest?

Answer \_\_\_\_\_ [2]

(iv) After the events of questions 2 and 3, which queue is now the longest?

Answer \_\_\_\_\_ [2]

**END OF TEST**

