

Answer ALL TWENTY questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 (a) Write these numbers in order of size.
Start with the smallest number.

73 138 36 219 89

(1)

- (b) Write in figures the number two thousand and eighteen.

(1)

- (c) Write in words the number 4309

(1)

- (d) Write down the value of the 7 in 9715

(1)

- (e) Write the number 286 correct to the nearest 10

(1)

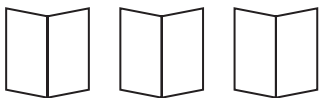
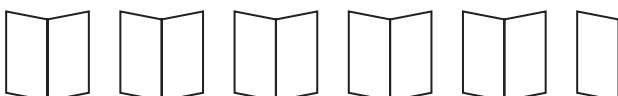

- (f) Work out $\frac{4}{5}$ of 185

(2)

(Total for Question 1 is 7 marks)



2 The pictogram shows some information about the number of books read by Theodore during each of five weeks.

Week 1	
Week 2	
Week 3	
Week 4	
Week 5	

(a) During which week did Theodore read the greatest number of books?

Week

(1)

Theodore read 16 books during Week 1

(b) (i) How many books does  represent?

(ii) How many books did Theodore read during Week 2?

(iii) How many books did Theodore read during Week 5?

(3)

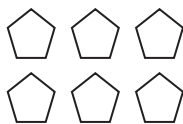
(Total for Question 2 is 4 marks)



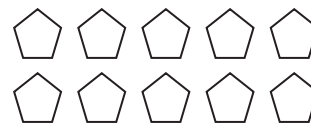
3 Here is a sequence of patterns made from identical pentagons.



Pattern number 1



Pattern number 2



Pattern number 3

(a) (i) Work out the number of pentagons in Pattern number 4

(ii) Explain how you worked out your answer.

(2)

A different sequence of patterns is made from identical hexagons.
The rule below can be used to find the number of hexagons in each pattern of this sequence.

Multiply the Pattern number by 5 and subtract 1

(b) Work out the number of hexagons in Pattern number 7

(1)

A pattern in this sequence has exactly 59 hexagons.

(c) Work out its Pattern number.

(2)

(Total for Question 3 is 5 marks)



4 Megan buys 2 muffins and 1 carrot cake.
The total cost is £4.74

The cost of the carrot cake is £1.80

(a) Find the cost of each muffin.

£ (3)

Caitlin buys some apples and some oranges.
She buys twice as many apples as oranges.

Each apple costs £0.25
Each orange costs £0.30

Caitlin has £5 to spend.

(b) Find the greatest number of apples she can buy.

(3)

(Total for Question 4 is 6 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

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DO NOT WRITE IN THIS AREA



- 5 The table shows information about the number of gold medals won by each of 8 countries at the 2016 Olympics.

Country	Number of gold medals
China	26
France	10
Germany	17
Great Britain and Northern Ireland	27
Japan	12
Russia	19
South Korea	9
United States	46

- (a) Work out the range of the number of gold medals.

(1)

- (b) Work out the median number of gold medals.

(2)

- (c) Work out the mean number of gold medals.

(2)

(Total for Question 5 is 5 marks)



6 Sabbir arrived at Dhaka train station at 9 30 pm.

(a) Write this time using the 24-hour clock.

(1)

A train left Dhaka train station at 10 30 pm one day.

The train arrived at Chittagong train station at 7 50 am the next day.

(b) Work out the time taken by this train.

Give your answer in hours and minutes.

hours

minutes

(2)

A different train travelled from Dhaka to Darshana.

The train took 5 hours and 30 minutes.

The train travelled a distance of 327 kilometres.

(c) Work out the average speed of the train.

Give your answer in kilometres per hour correct to the nearest whole number.

km/h

(3)

(Total for Question 6 is 6 marks)



7 (a) Write down the prime number between 90 and 100

(1)

(b) Find the value of 3^6

(1)

(c) Find the cube root of 6859

(1)

(d) (i) Work out the value of $\frac{\sqrt{8.4 + 9.1^2}}{4.1 \times 0.6}$

Write down all the figures on your calculator display.

(2)

(ii) Write your answer to part (d) (i) correct to 1 decimal place.

(1)

(Total for Question 7 is 6 marks)

