ST. MARY'S *Catholic High School, Dubai*

MATHEMATICS PRACTICE PAPER – 4

Year 6 (2017)

SECTION A

ANSWER ALL THE QUESTIONS

In section A, put a cross in one box ⊠ to indicate your answer. If you change your mind,

Put a line through the box ⊠ and then put a cross in one box.

Each question in section A is worth one mark.

1. There are 600 students in a school. Three – quarters of the students own a bicycle.

    How many students own a bicycle?

150	450	550	750
☒	☒	☒	☒

2. In which of these numbers does the digit 7 have the smallest value?

5.741	69.575	73.83	217.2
☒	☒	☒	☒

3. Which of these fraction is equivalent to $\frac{3}{4}$?

$\frac{30}{44}$	$\frac{21}{28}$	$\frac{13}{14}$	$\frac{23}{24}$
☒	☒	☒	☒

4. How many edges does a cube have?

4	6	8	12
☒	☒	☒	☒

5. What number is exactly **halfway** between ten and negative twenty?

-10	-5	0	5
☒	☒	☒	☒

6. Which of these is a prime number?

31	33	35	39
☒	☒	☒	☒

7. At a zoo, the mass of the elephant is 7200 kg.

The mass of the elephant is:

- 4 times the mass of the hippopotamus.
- 6 times the mass of the giraffe.

How much greater is the mass of the hippopotamus than the mass of the giraffe?

600	1200	1500	3000
☒	☒	☒	☒

8. There are 54 marbles and they are put into 6 bags, so that the same numbers of marbles are in each bag.

How many marbles would **two** bags contain?

18	12	10	9
☒	☒	☒	☒

9. Julie put a box on a shelf that is 96.4 cm long. The box is 33.2 cm long.

What is the length of the longest box she could put on the rest of the shelf?

99.6 cm	66.4 cm	96.4 cm	63.2 cm
☒	☒	☒	☒

10. Here are four fractions. Which of them is equal to 0.5 ?

$$\frac{1}{50} \qquad \frac{50}{100} \qquad \frac{100}{50} \qquad \frac{1}{5}$$

☒   ☒   ☒   ☒

11. John has 1.04 kg of flour . He uses ½ kg to make a loaf of bread.

How much flour does he have left?

54 g   504 g   520 g   540 g

☒   ☒   ☒   ☒

12. There are 5 green balls and 1 yellow ball in a bucket.

A student takes one ball from the bucket without looking.

What is the chance that the ball is yellow?

1 chance in 5   1 chance in 6   5 chances in 6   6 chances in 6

☒   ☒   ☒   ☒

13. Some students were asked if they like apples and bananas.

The results are shown in this table.

		Bananas	
		Like	Do not like
Apples	Like	25	4
	Do not like	3	1

How many students did not like bananas, but like apples?

25   4   3   1

☒   ☒   ☒   ☒

14. At a fair, 32 plastic ducks are floating in a pool. Two of the ducks have a prize inside. Samir chooses one duck.

What is the chance he chooses a duck with a prize inside?

1 in 2	1 in 16	1 in 30	1 in 32
☒	☒	☒	☒

15. The shape shown below is a / an _____

| Hexagon	pentagon	heptagon	octagon
☒	☒	☒	☒

16.
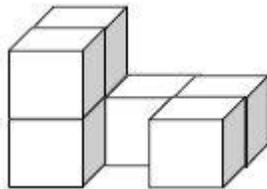
Which one of the following 2-D shapes shows the front view of the above 3–D object ?

| ☒ | ☒ | ☒ | ☒ |
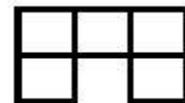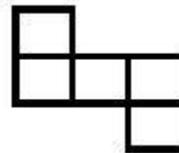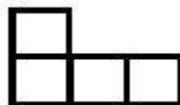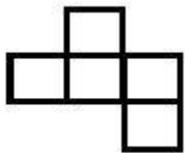
17. Amy is working out a calculation. She rounds **both** numbers to the nearest **whole number.**

The answer is 5. Which calculation is she working out?

14.57 - 8.14 ☒   14.57 - 8.4 ☒   14.57 - 6.91 ☒   14.56 - 9.51 ☒

18. Which of these is a correct statement?

0.5 > 0.501 ☒   0.9 = 0.90 ☒   0.3165 > 0.35 ☒   0.215 > 0.3059 ☒

19. Amrita drew this graph of the growth of a seedling.
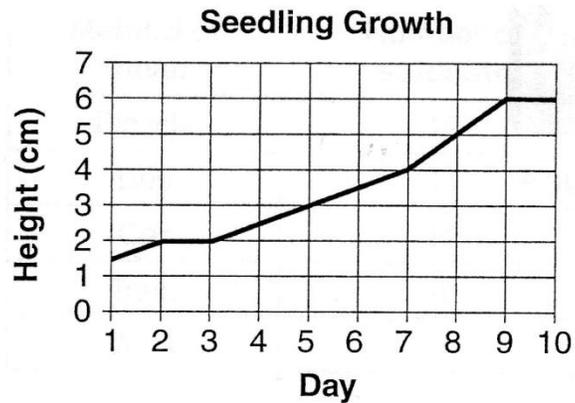
What was the height of the seedling on day 6?

3 cm ☒   3.5 cm ☒   4 cm ☒   4.5 cm ☒

20. 10 + 6 ÷ 4

4 ☒   15 ☒   11.5 ☒   2.5 ☒

TOTAL FOR SECTION A IS 20 MARKS

SECTION B

Answer ALL questions.

21. Fill in the missing digits to make the addition correct.

| 2 | 6 | | + | 5 | | 4 | = | | 1 | 7 |

(Total for Question 21 is 1 mark)

_____

22. A candy store sells chocolate bars and lollipops at the price shown below.
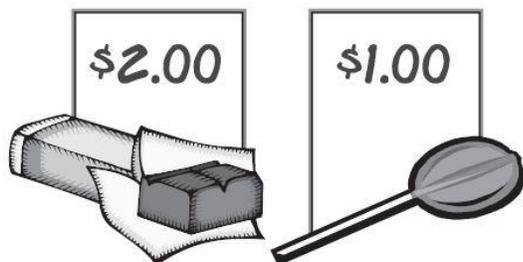
If a customer buys 2 lollipops, then the price of the second lollipop is reduced by 25%.

How much would it cost to buy a chocolate bar and two lollipops?

$ ………………

(Total for Question 22 is 1 mark)

_____

23. The triangle below is an Isosceles triangle.

    Side PQ and side PR of the length . Angle Q = 48°

    Work out the size of angle **a**.

    ……………..
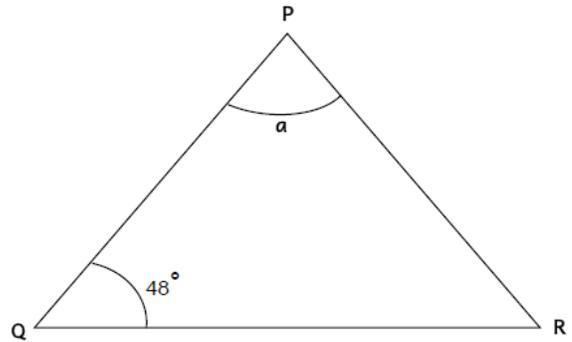
    (Total for Question 23 is 1 mark)

_____

24. Expand and simplify:

    $$7(2x + 1) + 6(x + 3)$$

    …………………………..

    (Total for Question 24 is 2 marks)

_____

25. Katie draws a rectangle and shades some squares inside it.
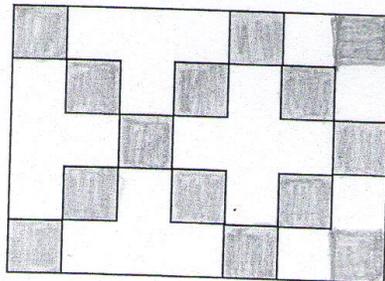
    What percentage of the rectangle is shaded?

    ………………….. %

    (Total for Question 25 is 2 marks)

26. The diagram shows a rectangle, a parallelogram and a triangle.
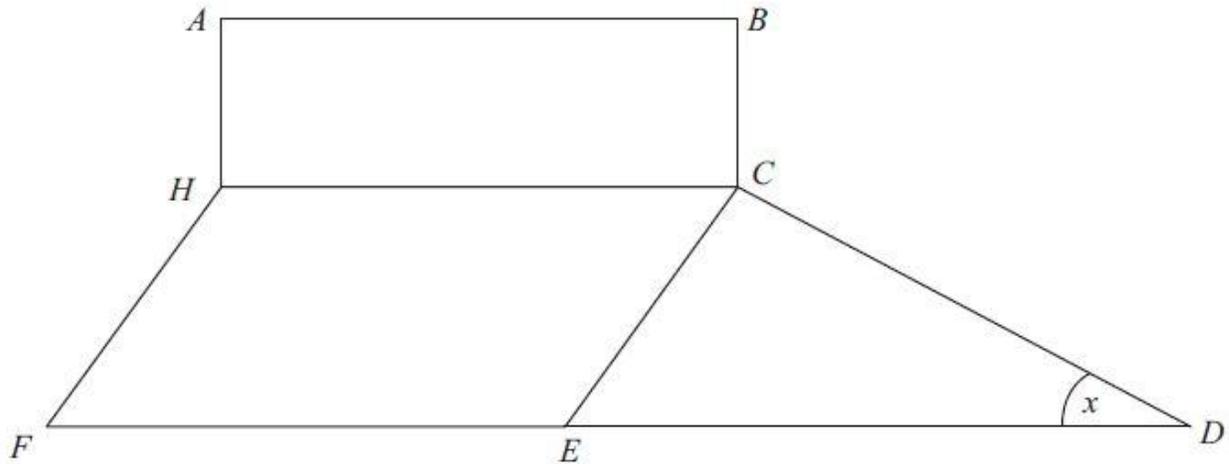
a) Mark with arrows **(>>)** a pair of parallel lines. (1)

b) What type of angle is marked with **x.** ? ....

(1)

c) Mark the angle HCE with the letter y, and write down its measure.

(Use your protractor to measure) Y = ...°

(1)

(Total for Question 26 is 3 marks)

_____

27. Rose and Grace each have a parcel.

Rose's parcel weighs 1 ½ kg.

Grace's parcel weighs 1.2 kg.

How many more grams did Rose's parcel weigh than Grace's?

…………………..grams

(Total for question 27 is 1 mark)

28. The time line below shows the daily opening hours of a shop.

8:30 am   11:30 am
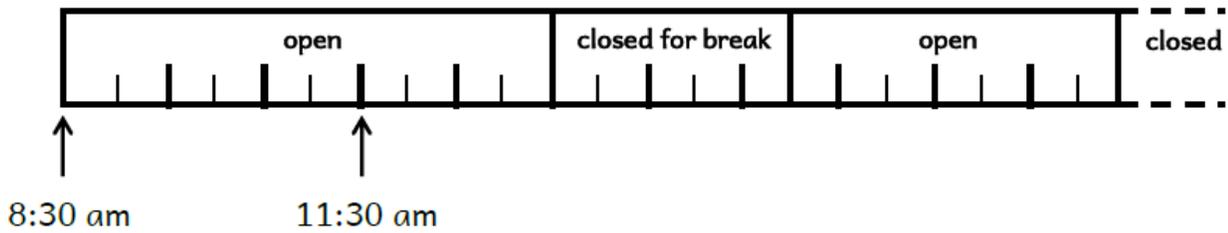
a) At what time does the shop close for break?   …………………..

b) How long does the door stay open during the day?   …………………………

(Total for Question 28 is 2 marks)

_____

29. A shop sells drinks. The pie chart compares the money a shop took last year for water, juice and soft drink.

The shop took £826 for soft drinks.

Sales for water and juice were **equal.**

Key:
- Water
- Juice
- Soft drinks
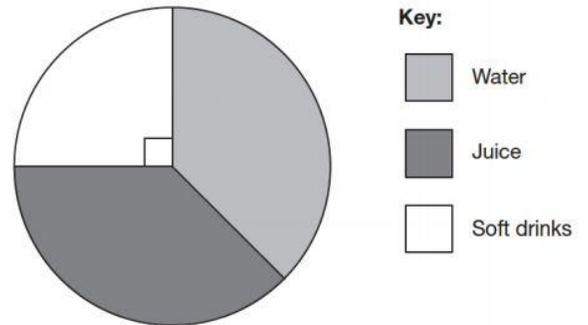
How much money did the shop take for juice last year?

£ ………………….

(Total for Question 29 is 3 marks)

30. Here are two bags of marbles, A and B.

Each bag contains blue marbles and red marbles only.

3 blue marbles
and
3 red marbles

6 blue marbles
and
9 red marbles

Tim chooses a marble from each bag without looking.

From which bag is she more likely to choose a **blue** marble?   Bag A or B?

Bag …………..

(1)

Explain how you know.

……..

……..

(1)

(Total for Question 30 is 2 marks)

_____

31. Fill in the boxes to make the calculation correct.

(3 + ☐) x ☐ = 120

(Total for Question 31 is 1 mark)

_____

32. At Stockton castle, the opening times are as follows:

	1st May − 30th September	1st October – 30th April
Monday to Friday	11 am - 5 pm	closed
Saturday, Sunday and Bank holidays	10 am - 6 pm	12 noon - 4 pm

a) For how many months is the castle open seven days a week? ……………. Months

(1)

b) John goes to the castle at 11 am on 1st October. Can he go? …………….

(1)

c) Yuan said that he visited the castle on a Monday in March.

Explain how this is possible. ………………………………………………………………………….

(1)

(Total for Question 32 is 3 marks)

_____

33. Look at this cube.

Circle the net that could have been used to make the cube.
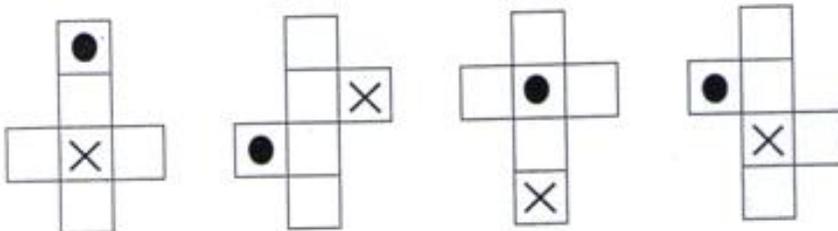
(Total for Question 33 is 1 mark)

34. John is making a paper decoration by joining strips of paper together.

Each strip of paper is 25 cm long.
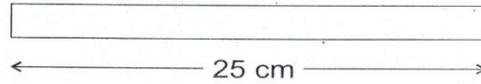
←———————— 25 cm ————————→

Each strip overlaps by 5 cm.

5 cm   5 cm
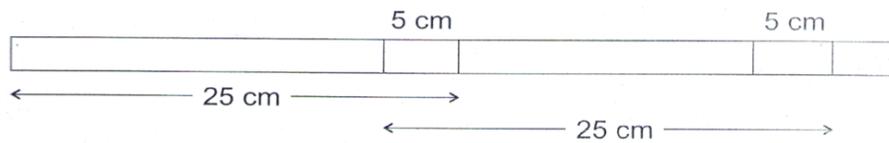
←——— 25 cm ———→

←——— 25 cm ———→

a) How long are **two** strips joined together?

………………… cm

(1)

b) John wants to make a decoration that is 225 cm long.

   How many strips will he need?   ………………. strips

(1)

(Total for Question 34 is 2 marks)

35. Calculate the angles; a, b, and c

(Give reasons for your answer)
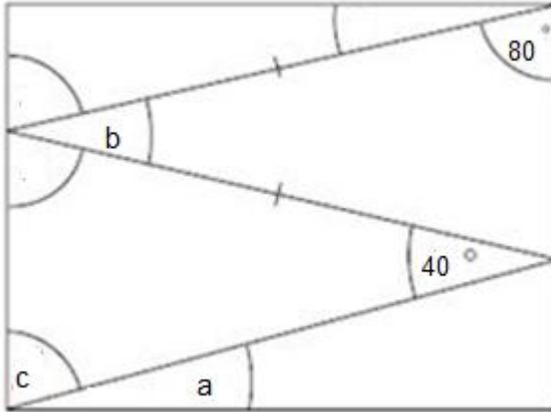
a = …………°   b = …………..°   c = …………..°

(Total for Question 35 is 3 marks)

_____

36. Calculate the area of this compound shape.
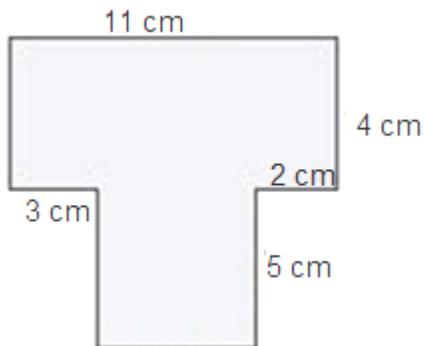
Area = ……………. cm²

(Total for Question 36 is 2 marks)

37. Points A, B, C and D are the corners of a rectangle.
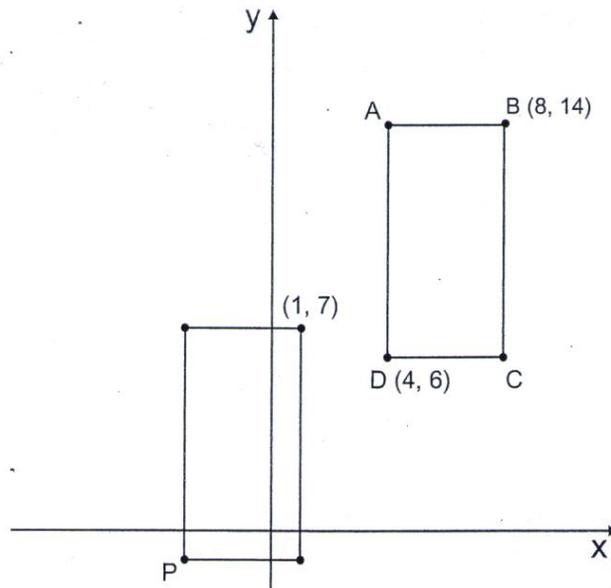
(i) What are the coordinates of point A?   A = (…….. , ……..)

(1)

(ii) Rectangle is translated on the grid. Point P is the new position of point D.

What are the coordinates of point P?   P = (…….. , ………)

(1)

(Total for Question 37 is 2 marks)

_____

38. In this diagram the rule is :

"To get the number in the rectangle, add the numbers in the two circles below it and subtract five."

Fill in the missing numbers to complete the diagram.
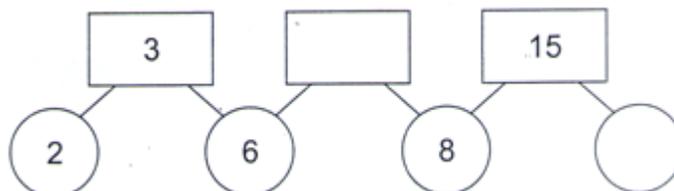
(Total for Question 38 is 2 marks)

39. Draw the reflection of the shape in the mirror line
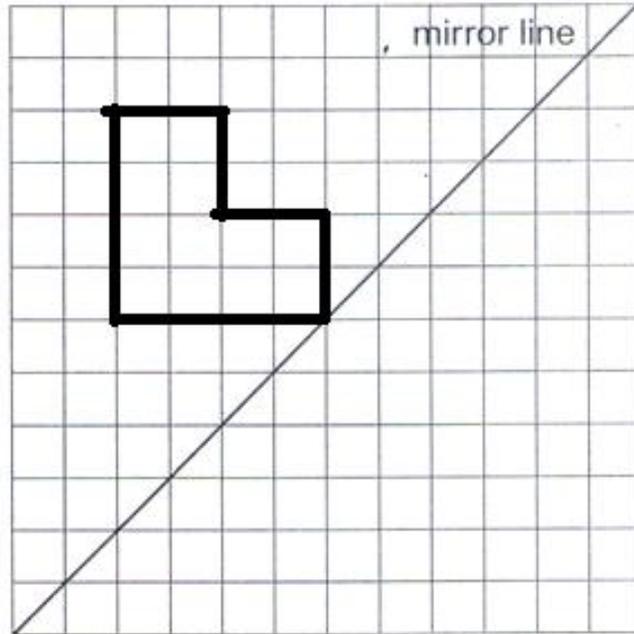

(Total for Question 38 is 2 marks)

_____

40. Andy has scored 84, 65 and 76 on three math tests.

How much must he obtain on the next test to have an average of exactly 80 for the four tests?

…………………………………..

(Total for Question 40 is 1 mark)

_____

41. The graph shows how the temperature changed in Aaron's room one afternoon.
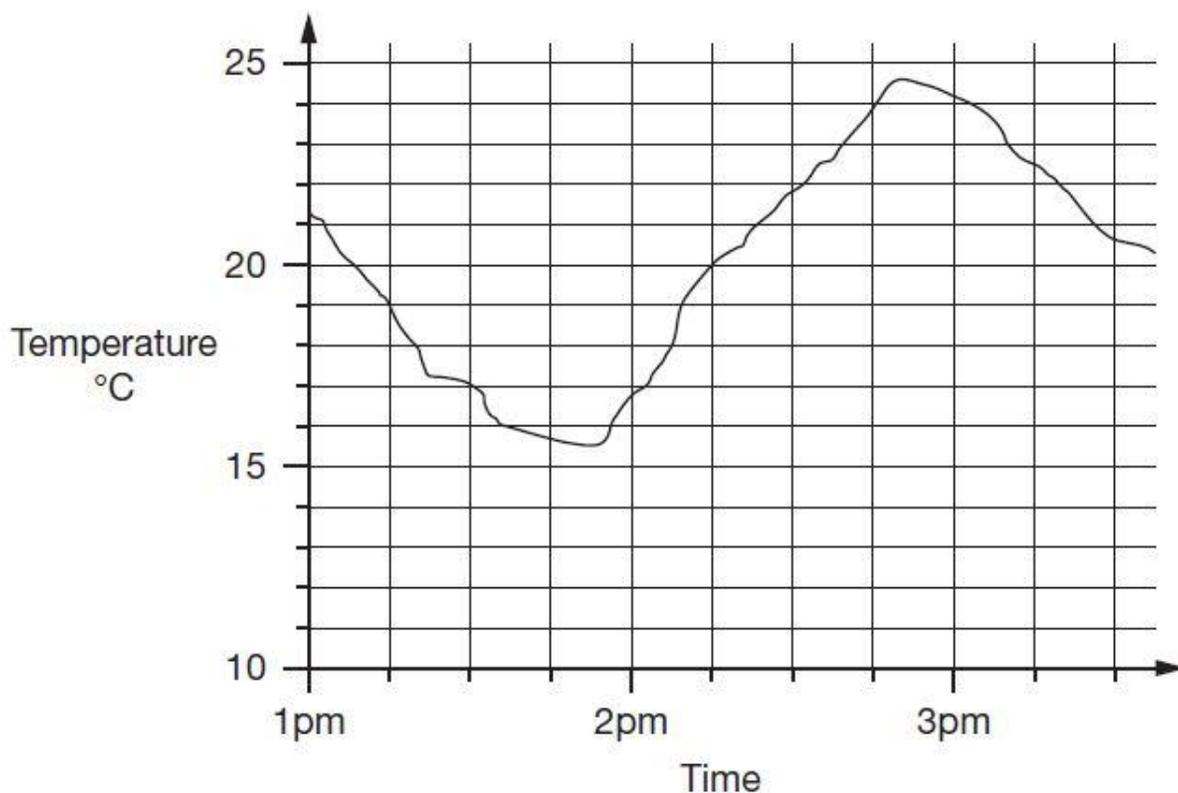
a) Estimate the temperature at 3:15 pm?   ………………

b) Estimate the time when the temperature was the highest.   …………………

c) How much did the temperature change 2 pm to 2:30 pm ?   …………………

   (Give your answer to the nearest degree)

(Total for Question 41 is 3 marks)

_____

TOTAL FOR SECTION B IS 40 MARKS

TOTAL FOR PAPER IS 60 MARKS