

**MENTAL PAPER --- YEAR 6--- HALF YEARLY**

***'For the following group of questions, you have 5 seconds to work out each answer and write it down.'***

***'Għal dawn il-mistoqsijiet li ġejjin, għandek 5 sekondi biex taħdem u tiktib kull risposta.'***

**Practice question: four lots of seven.**

- 1. Write the number fifteen thousand and twenty-six in digits.**
- 2. How many zeros does one million have?**
- 3. What must be added to seven hundred thirty to make one thousand?**
- 4. What are seven lots of eighty?**
- 5. Which three-dimensional shape has one vertex?**

***'For the following group of questions, you have 10 seconds to work out each answer and write it down.'***

***'Għal dawn il-mistoqsijiet li ġejjin, għandek 10 sekondi biex taħdem u tiktib kull risposta.'***

- 6. How many quarters in three wholes?**
- 7. Round seven hundred seventy-eight to the nearest hundred**
- 8. What is half of fifteen point six?**
- 9. Work out the sum of seventy-two, twenty-eight and sixty.**
- 10. Write seven and three fourths as an improper fraction.**
- 11. In a right-angled triangle, one of the angles is fifty degrees. Write down the size of the smallest angle in this triangle.**
- 12. Write five fifteenths as a fraction in its lowest terms.**
- 13. Write the next odd number in the sequence: thirty-seven, thirty-nine.**
- 14. Which is the larger fraction four fifths or seven tenths?**
- 15. Write three hundredths as decimal fraction.**

***'For the following group of questions, you have 20 seconds to work out each answer and write it down.'***

***'Għal dawn il-mistoqsijiet li ġejjin, għandek 20 sekonda biex taħdem u tikteb kull risposta.'***

16. **Ten times a number is three hundred and fifteen.** What is the **number**?
17. Kate and her brother Steve collect stamps. Kate has **sixty** stamps and Steve has **eighty** stamps. How many **more** do they need for a total of **two hundred** stamps?
18. **One fifth** of the school population are **boys**. How many **girls** are there if there are **three hundred** pupils in the school?
19. How many **degrees** are turned by the **minute hand** in **forty minutes**?
20. I am **facing South East**. I turn **three and a half right angles anticlockwise**. Which direction am I facing now?
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**THERESA NUZZO SCHOOL MARSA**  
**HALF YEARLY EXAMINATIONS 2017-2018**  
**MATHEMATICS**

**Grade 6**

**Name:** \_\_\_\_\_ **Register No** \_\_\_\_\_

**Class** \_\_\_\_\_

**Mental Paper Time: 20 minutes**

**Mark**

**Written Paper Time 1hour 30 minutes**

**Mark**

**Total Mark**

Practice  
question

1

2

3

4

5

6

quarters

7

8

9

10	
----	--

11	0
----	---

12	
----	--

13	
----	--

14	
----	--

15	
----	--

16	
----	--

17	stamps
----	--------

18	girls
----	-------

19	0
----	---

20	
----	--

1. Work Out:

a) $561 + 76$	b) $9000 - 5432 =$
c) $525 \div 5 =$	d) $34 \times 9 =$

(4 marks)

2) This table shows the heights of three mountains.

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

a) Round the height of Mount Everest to the nearest 1000.

b) Round the height of Mount Kilimanjaro to the nearest 10.

c) How much higher is Mount Everest than the combined height of the other two mountains?

m

(4 marks)

3. Use the following digits to answer:

6	4	5	9
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a) Using **all** the digits **only once** write the **largest whole number**.

b) Using **all** the digits **only once** write the **smallest possible whole even number**.

c) Using **all** the digits **only once**, write a number which, when rounded to the **nearest hundred** is 5900.

d) Using **all** the digits **only once**, write a number which is the **smallest multiple of 5**.

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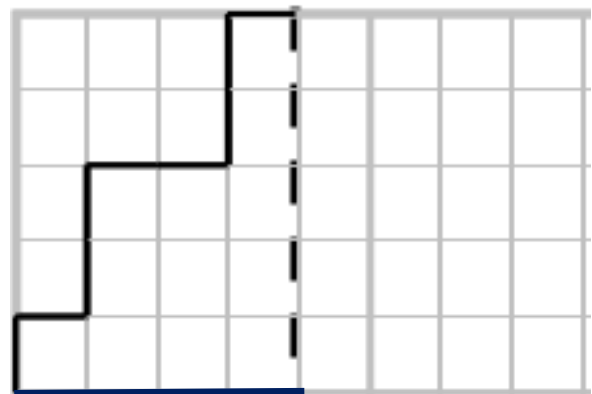
(4 marks)

4a) Write the four missing digits to make this addition correct.

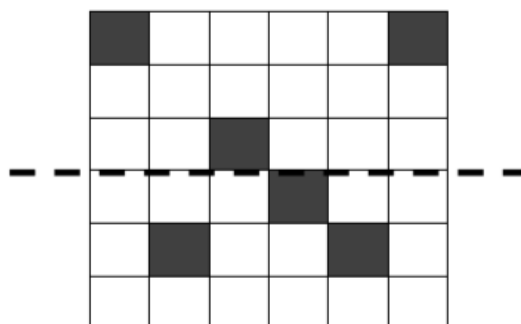
$$\begin{array}{cccc}
 \square & 6 & \square & 8 \\
 + & 3 & \square & \square \\
 \hline
 9 & 0 & 1 & 9
 \end{array}$$

(4marks)

5a) Use a ruler to complete the drawing below to make a symmetrical shape. The dotted line in the middle is the line of symmetry.



5b) Look at the diagram below. Shade the squares needed to complete the reflection in the mirror line.



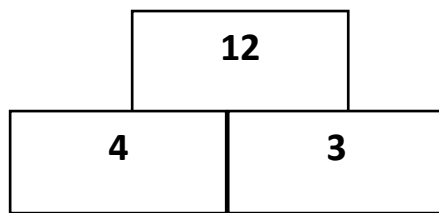
c) Draw the lines of symmetry of the following shape.



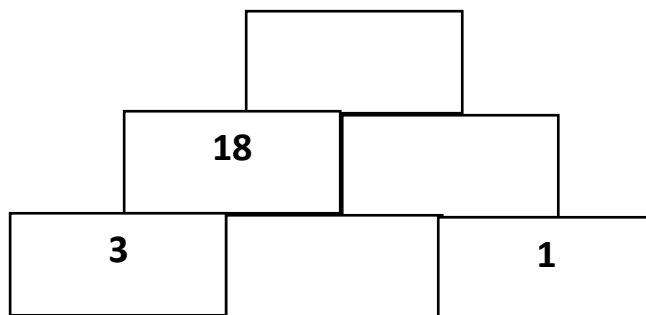
(5 marks)



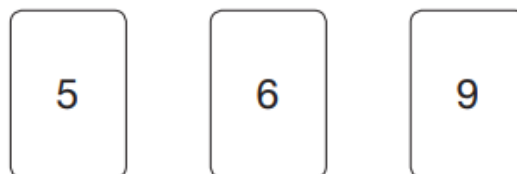
6a. In this tower, **two numbers** are **multiplied** to give the **number above**.



Write the **missing numbers** in the tower below to make it correct.



6b) Jessica uses these digit cards



She makes a **2-digit number** and a **1-digit number**.

She **multiplies** them together.

Her **answer** is a **multiple of 10**.

What **could Jessica's multiplication** be?



(5 marks)

7a) Fill in with  $<$ ,  $>$  or  $=$

i) 3 hundredths   $\frac{3}{10}$

ii)  $0.03$    $\frac{3}{100}$

7b) Here are six cards.

$\times 10$

$\times 100$

$\times 1000$

$\div 10$

$\div 100$

$\div 1000$

Use a card to complete each calculation.

$5.3$    $= 0.53$

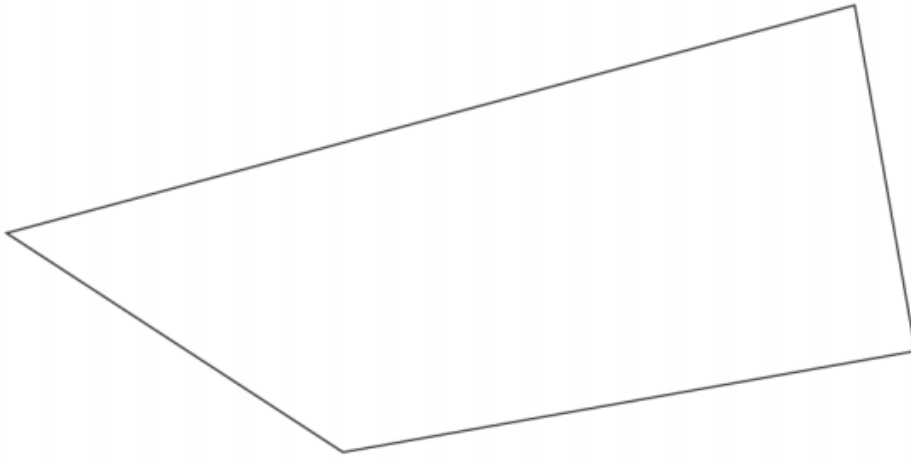
$5.3$    $= 5300$

$5.3$    $= 0.053$



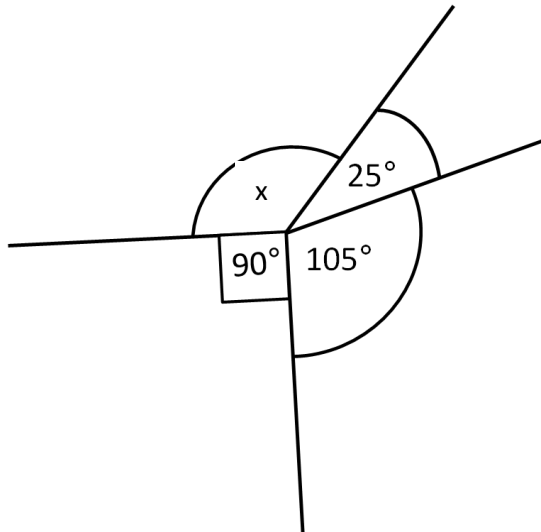
(5 marks)

8a) In this shape **one** of the angles is **obtuse**. Mark the **obtuse** angle.



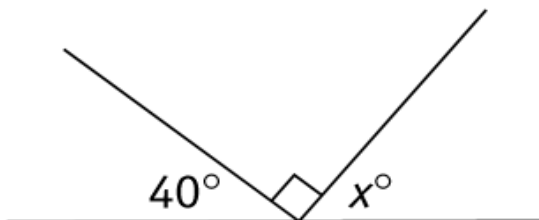
8b) Find the **value** of **x** in each case:

(i)



$x = \underline{\hspace{2cm}}^\circ$
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(ii)

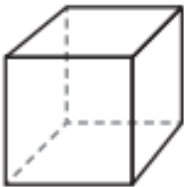
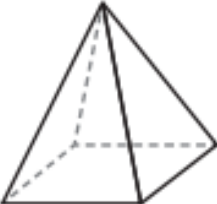



$x = \underline{\hspace{2cm}}^\circ$
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( 5 marks)

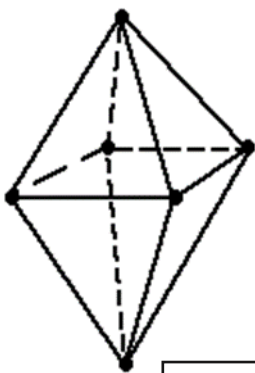
9a) Here are diagrams of some 3D shapes.

Tick the shapes that has the same number of faces as vertices.

	Cube	<input type="checkbox"/>
	Square-based pyramid	<input type="checkbox"/>
	Triangular-based pyramid	<input type="checkbox"/>

9b) Jack has two square based pyramids that are the same size. He sticks the square faces together to make a new 3-d shape.

How many faces, vertices and how many edges does he his new 3-D shape have?



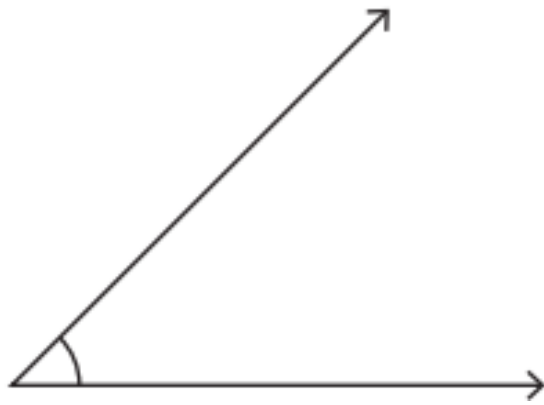
\_\_\_\_\_ faces

\_\_\_\_\_ vertices

\_\_\_\_\_ edges

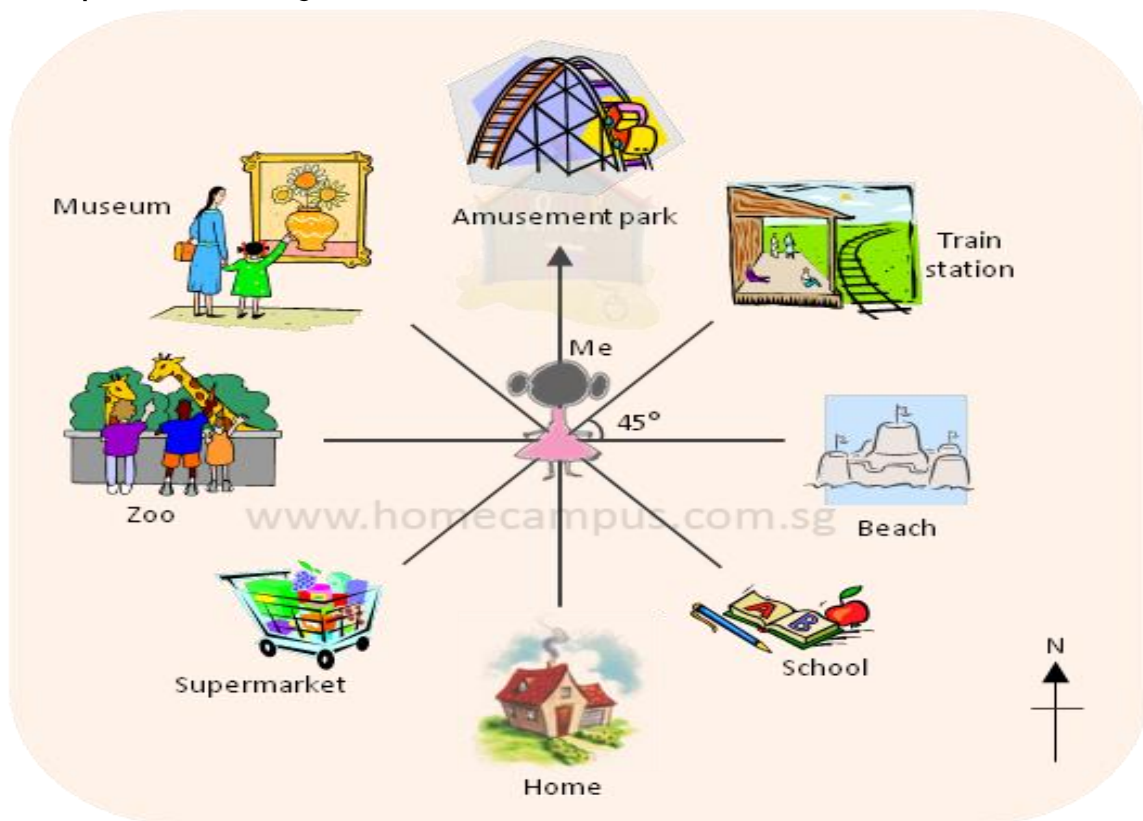
(5 marks)

10a) Use a protractor to measure the angle.



\_\_\_\_\_ °

b) This is the plan of a village and fill in the blanks.



i) I am facing the zoo. How many degrees in the anti-clockwise direction must I turn to face the school? \_\_\_\_\_

ii) I am facing south-west. Which place will I be facing if I turn 180°? \_\_\_\_\_

iii) The super market is \_\_\_\_\_ of the school.

iv) The \_\_\_\_\_ is NW of the school.

\_\_\_\_\_ (5 marks)

11. Tom works in a sports shop. He packs tennis balls in tubes.

a. Each tube contains **3 balls**.

One box holds **15 tubes** of balls.

How many balls does he have in one box?



\_\_\_\_\_ balls

b. Tom has **540 tennis balls** to pack.

i) How many **boxes** does he need to pack **all** the balls?

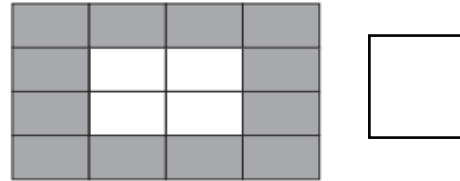
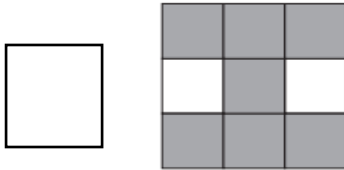
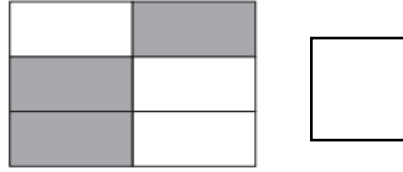
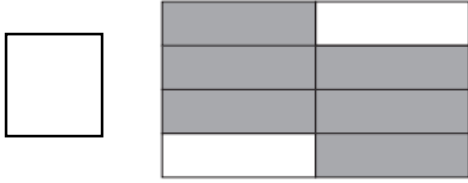
\_\_\_\_\_ boxes

ii) Tom packs  $\frac{2}{3}$  of the tennis balls in 1 hour. How many balls does he pack in 1 hour?

\_\_\_\_\_ balls

(5 marks)

12a) Tick the shapes that have  $\frac{3}{4}$  shaded.



12b) Anna and Paul bought some seeds for their garden.

i) Paul bought 20 seeds. Only 15 grew. Tick who is right?



Paul said, " $\frac{3}{4}$  of my seeds grew."

Anna said, " $\frac{3}{5}$  of the seeds grew."

Paul

Anna

ii) Anna planted some seeds. For every 4 seeds Anna planted only 3 seeds grew. Altogether, 12 grew. How many seeds did Anna plant?

seeds

(6marks)

13a) At the **start of June**, there were **793 toy cars** in the shop. During June,

- **828 more toy cars were delivered**
- **973 toy cars were sold.**

How many toy cars were left in the shop at the end of June?

\_\_\_\_\_ toy cars

13b) Jack and Jill buy some stickers from the shop.



Pack of 12 stickers  
€ 10.49.



12 stickers  
99c each

Jack buys a pack of 12 stickers for €10.49. Jill buys 12 single stickers at 99c each.

How much more does Jill pay than Jack?

€ \_\_\_\_.

13c) Jill's sister Amina buys **three identical pens**. She pays with a **€20 note**. Her **change is €14.96**. What is the cost of **each pen**?

€ \_\_\_\_.



14) A boat trip from **Malta to Sicily** costs **€159** for **adults**. A **child's** ticket costs **half the price**.



a) How much does the ticket for a **child** cost?

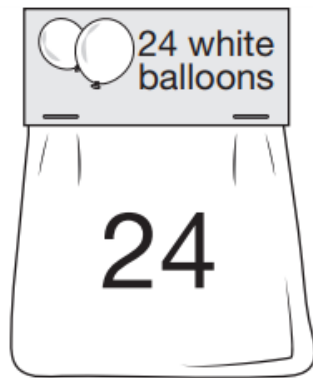
b) John and Anna are taking their **3 children** with them to Sicily. How much will they have to pay for the **five tickets**?

c) John and Anna already saved **€420**. They save **€50 every month**, how many **more months** until they will have **enough money** to pay for **all the tickets**?

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(6 marks)

15) Adam buys 6 bags of white balloons. Chen buys 3 bags of red balloons. Adam says, 'I have four times as many balloons as Chen.' Explain why Adam is correct.



15b) Liam has a set of cards. The number of cards he has is **between 30 and 50**. When he puts them in **groups of 6** cards, there are **3 cards left**. When he puts them in **groups of 8** cards, there are **5 cards left**. How many cards does he have?



\_\_\_\_\_ cards

(6 marks)

16) At the Fun Park, the roller coaster has **25** carriages. Each carriage holds **16** people.

a) How many people are on the roller coaster when it is full?



\_\_\_\_\_ people

b) There are **345** people waiting for the next ride. What is the **least** number of carriages which are used?

\_\_\_\_\_ carriages

c) Look at the **ticket prices** to go on the roller coaster. A family of **10** people want to go on the roller coaster. There are **3** children in this family. What is the **best** price that this family can get?

<u>Ticket Prices</u>
Adults: €4.50
Children: €3
Groups of 6: €20

€ \_\_\_\_ . \_\_\_\_

(6 marks)

**THE END**