# **SUBJECT: MATHS**

#### **Contents:**

## Unit 3. Decimals, percentages and rounding

✓ 3.4. Understanding upper and lower bounds (p.75-80)

#### **Unit 4. Equations and inequalities**

- ✓ 4.1. Constructing and solving equations (p.83-89)
- ✓ 4.2. Simultaneous equations (p.89-96)
- ✓ 4.3. Inequalities (p.97-102)

#### Unit 5. Angles

- ✓ 5.1. Calculating angles (p.103-107)
- ✓ 5.2. Interior angles of polygons (p.107-110)
- ✓ 5.3. Exterior angles of polygons (p.111-114)
- ✓ 5.4. Constructions (p.114-118)
- ✓ 5.5. Pythagoras' theorem (p.119-125)

# Unit 7. Shapes and measurements

- ✓ 7.1. Circumference and area of a circle (p.138-146)
- ✓ 7.2. Areas of compound shapes (p.147-152)
- ✓ 7.3. Large and small units (p.153-159)

# **Instructions:**

- 1) Students MUST complete the study guide before revision classes.
- 2) Students are ALLOWED to use calculators for problem-solving tasks.

### PART 1. MATHEMATICAL TERMS

NO.	TERMS	UNITS	DEFINITIONS	VIETNAMESE TRANSLATIONS
1	lower bound	3.4		
2	upper bound	3.4		
3	construct (an equation)	4		
4	sector	4		
5	solve	4		
6	method of elimination	4		
7	method of substitution	4		
8	simultaneous equations	4		
9	inequality	4		
10	solution set	4		
11	regular polygon	5		
12	interior angle of a polygon	5		

13	exterior angle of a polygon	5	
14	hypotenuse	5	
15	Pythagoras' theorem	5	
16	circumference	7	
17	area	7	
18	diameter	7	
19	radius	7	
20	prefix	7	
21	tonne	7	

# **PART 2. EXERCISES**

# Question 1

A number is rounded to 1 significant figure, and the answer is 500.

What is the smallest possible original number?

#### Question 2

A number is 1300 when rounded to 2 significant figures.

Fill in the lower and upper bounds of the number.

≤ number <

#### Question 3

A number, n, is 95 when rounded to 2 significant figures.

Complete the upper and lower bounds of the number.

≤ n <

#### Question 4

What is the solution to the linear equation 7r = -21?

*r* =

## Question 5

$$\frac{4-v}{5}=v\,+\,2$$

Solve for v.

v =

#### Question 6

Hailey thinks of a number, doubles it and adds 5 to get 17.

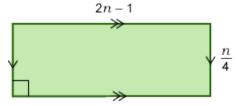
What was the number Hailey thought of?

$$\frac{3(z+4)}{7}=6$$

Solve for z.

$$z =$$

### **Question 8**



The perimeter of the rectangle is 7 cm.

Find the length of the shorter sides.

Length of a shorter side = cm

### Question 9

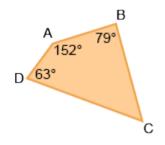


Diagram not drawn to scale

$$152^{\circ} + 79^{\circ} + 63^{\circ} = 294^{\circ}$$

### Question 10

Find the size of the unknown angle marked  $x^{\circ}$  in the diagram.



Diagram not drawn to scale

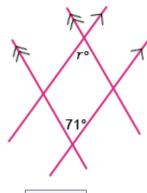


Diagram not drawn to scale

r =

# Question 12

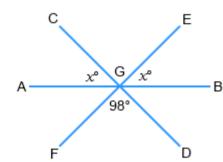


Diagram not drawn to scale

AB, CD, EF are three straight lines that meet at G.

Find the value of x.

#### Question 13

A polygon has internal angles that add to 1440°.

Enter a number to complete this sentence.

The polygon has sides.

#### Question 14

A regular polygon has an exterior angle of 15°. How many sides does the polygon have?

# **Question 15**

What is the size of each interior angle of an equilateral triangle?

•

The diameter of a circle is 18 cm long. How long is the radius?

cm

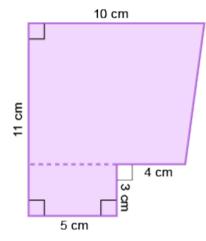
### **Question 17**

What is the area of a circle with radius 3 cm?

Give your answer to one decimal place.

cm<sup>2</sup>

### **Question 18**

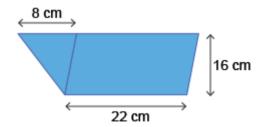


This shape can be split into a trapezium and a rectangle.

What is the area of the rectangular part?

Area = cm<sup>2</sup>

### Question 19



A compound shape is made by joining a parallelogram and a triangle.

What is the total area of the shape?

cm<sup>2</sup>

Find the area of this shape, formed by cutting a parallelogram from a triangle.

