



FORM 4

MATHEMATICS
Non-Calculator Paper

TIME: 20 minutes

Mark

DO NOT WRITE ABOVE THIS LINE

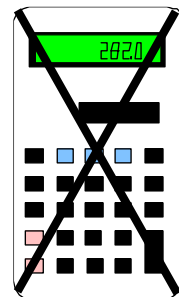
Name: _____

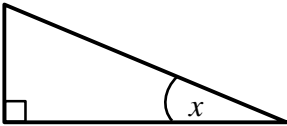
Class: _____

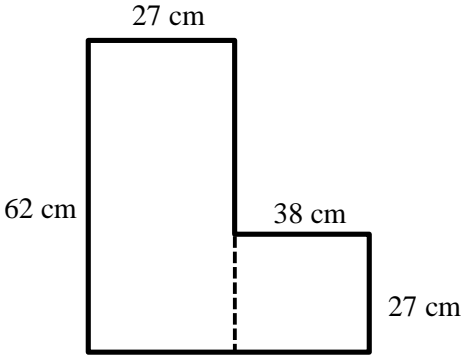
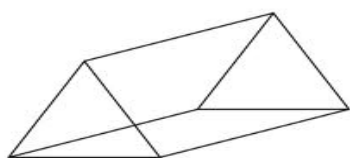
INSTRUCTIONS TO CANDIDATES:

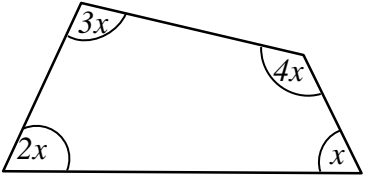
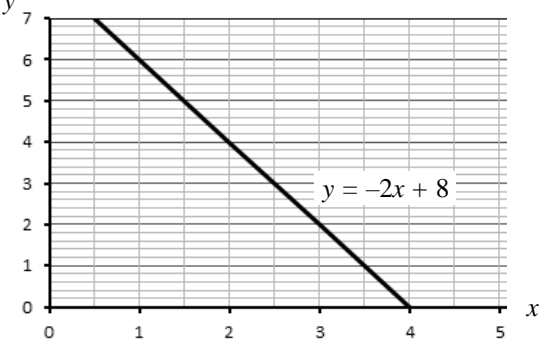
Read all the questions carefully before you start answering.

- Answer all questions.
- This paper carries 20 marks.
- **Calculators, protractors** and other mathematical instruments are **NOT ALLOWED**.
- On your desk you should have nothing except for **pen, pencil, ruler** and the **examination paper**.
- You are not required to show your working. However, space for working is provided if you need it.



No.	Question	Space for working, if required.
1	The product of an odd number and an even number is: A) either odd or even B) always even C) always odd D) sometimes odd Ans: _____	
2	Make s subject of the formula: $v^2 = u^2 + 2as$ Ans: _____	
3	Work out and simplify: $\frac{7}{4^2} + \frac{1}{2^4}$ Ans: _____	
4	Write down a fraction that lies between $\frac{1}{4}$ and $\frac{2}{4}$. Ans: _____	
5	Estimate: $\left(\frac{5.57 \times 8.43}{3.86}\right)^2$ Ans: _____	
6	At the Sliema ferry, ships leave every 20 minutes and boats leave every 15 minutes. The first ship and the first boat leave at 6:00 am. At what time will the ship and boat next leave together? Ans: _____	
7	$\cos x = \frac{4}{5}$ Work out the value of $\sin x$.  Ans: _____	
8	The area of a square is equal to that of a rectangle with sides 4 cm by 9 cm. What is the length of one side of the square? Ans: _____ cm	

9	<p>Work out: $\sqrt{0.0025}$</p> <p style="text-align: right;">Ans: _____</p>	
10	<p>Write 0.3 million in standard form.</p> <p style="text-align: right;">Ans: _____</p>	
11	<p>2.5 kg of seeds cover 10 m^2. How many kilograms of seed are needed to cover 140 m^2?</p> <p style="text-align: right;">Ans: _____ kg</p>	
12	<p>Work out the overall percentage increase when an increase of 10% is followed by an increase of 10%.</p> <p style="text-align: right;">Ans: _____</p>	
13	<p>What is the Highest Common Factor (HCF) of 252 and 2^4 ?</p> <p style="text-align: right;">Ans: _____</p>	
14	<p>Work out the area of this shape.</p> <div style="text-align: center;">  </div> <p style="text-align: right;">Ans: _____ cm^2</p>	
15	<p>The cross section of this prism is a triangle with base 8 cm and height 5 cm. The prism has a volume of 200 cm^3.</p> <p>What is the length of the prism?</p> <div style="text-align: center;">  </div> <p style="text-align: right;">Ans: _____ cm</p>	

16	<p>The sum of three consecutive numbers is 93. What are the three numbers?</p> <p style="text-align: right;">Ans: _____, _____, _____.</p>	
17	<p>Calculate the value of the smallest angle in this quadrilateral.</p>  <p style="text-align: right;">Ans: _____ °</p>	
18	<p>Work out the difference between 10% of €4985 and 10% of €985.</p> <p style="text-align: right;">Ans: _____</p>	
19	$B = \frac{W}{h^2}$ <p>W and h are a person's weight (kg) and height (metres). A healthy person has the value of B between 20 and 25.</p> <p>Mark is 1.2 m tall and is healthy. Write down a possible value for his weight.</p> <p style="text-align: right;">Ans: _____ kg</p>	
20	<p>The graph shows the line $y = -2x + 8$. On the same axes plot the graph $y = 2x$ and solve the simultaneous equations.</p>  <p style="text-align: right;">Ans: $x =$ _____; $y =$ _____</p>	