



FORM 4

MATHEMATICS
Non-Calculator Paper

TIME: 20 minutes

Mark

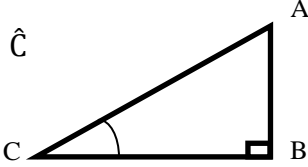
DO NOT WRITE ABOVE THIS LINE

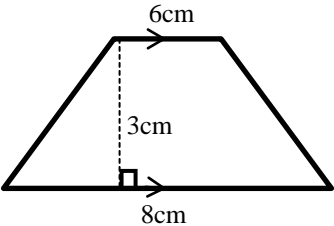
Name: _____

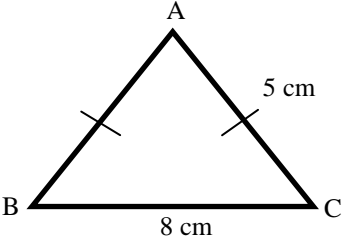
Class: _____

INSTRUCTIONS TO CANDIDATES:

- Answer all questions.
 - This paper carries 20 marks.
 - **Calculators and protractors are NOT ALLOWED.**
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No.	Question	Space for working, if required.
1	Evaluate, giving your answer as a mixed number . $3^2 + 2^{-3}$ Ans: _____	
2	Calculate, giving your answer in standard form : $\frac{5 \times 10^8}{2.5 \times 10^3}$ Ans: _____	
3	Simplify: $\frac{20x^2y^5}{2xy^{-1}}$ Ans: _____	
4	Find x : $3^x = \frac{1}{9}$ Ans: _____	
5	Evaluate: $13.7 \times 7 + 13.7 \times 3$ Ans: _____	
6	Factorise: $9x^2 - 16$ Ans: _____	
7	If $\tan \hat{C} = \frac{5}{12}$, find $\sin \hat{C}$  Ans: _____	

8	<p>I have a bag of marbles which I can share equally among 2, 3 and 7 children. What is the least number of marbles that I can have in the bag?</p> <p style="text-align: right;">Ans: _____ marbles</p>	
9	<p>Make r subject of the formula:</p> $V = \pi r^2 h$ <p style="text-align: right;">Ans: _____</p>	
10	<p>Write down the equation of a line passing through the points (0,2) and (3,5)</p> <p style="text-align: right;">Ans: _____</p>	
11	<p>The volume of a prism is 280 cm^3. Find the area of the cross-section if the length is 14 cm.</p> <p style="text-align: right;">Ans: _____ cm^2</p>	
12	<p>A book costs €25 and is sold at €10. Work out the percentage loss.</p> <p style="text-align: right;">Ans: _____ %</p>	
13	<p>What sum of money is invested to get a simple interest of €50 at 5% p.a. for 5 years?</p> <p style="text-align: right;">Ans: € _____</p>	
14	<p>Work out the area of this shape.</p>  <p style="text-align: right;">Ans: _____ cm^2</p>	

15	Work out $6 \times 3^2 + 2$ Ans: _____	
16	Factorise: $x^2 + 5x - 6$ Ans: _____	
17	What is the height of the triangle?  Ans: _____ cm	
18	Give the gradient of the line whose equation is $2y - 5 = 8x$ Ans: _____	
19	Which fraction is not equivalent to 0.3? $\frac{3}{10} \quad , \quad \frac{1}{3} \quad , \quad \frac{6}{20} \quad , \quad \frac{15}{50}$ Ans: _____	
20	Write down the Logo Commands using the repeat command to draw a square of side 50 turtle steps . Ans: _____	