

- Section A: Algebra & Equations

- Solve for x :
- $5^{2x-1} = 25^{x+3}$
- Find all real solutions:
- $\sqrt{x+3} + \sqrt{x-2} = 5$
- If $f(x) = 2x^2 - 3x + 1$, find $f(f(2))$.
- Simplify completely:
- $\frac{x^3 - 8}{x^2 - 4} \times \frac{x^2 + 4x + 4}{x^2 + 2x + 4}$
- Solve the system of equations:
- $\begin{cases} 2x + 3y = 7 \\ 4x - y = 11 \end{cases}$
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- Section B:

Geometry & Trigonometry

- A right triangle has legs of lengths 5 cm and 12 cm. What is the length of the altitude drawn to the hypotenuse?
- A circle is inscribed in an equilateral triangle with side length 6 cm. What is the area of the circle?