



AI SL QUIZ 3

[Maximum mark : 12]

[Total time : 18 minutes]

1. [Maximum mark : 6]

The graph of the quadratic function $f(x) = \frac{1}{2}(x-2)(x+4)$ intersects the y – axis at (0,c)

- (a) Find the value of c. [1]
- (b) Find the vertex of the function. [1]
- (c) Write down the equation for the axis of symmetry of the graph. [1]
- (d) The equation $f(x) = 8$ has two solutions. The first solution is $x = 4$ Use the symmetry of the graph to show that the second solution is $x = -6$ [2]
- (e) Write down the x- intercepts and y – intercepts of the graph. [1]

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1. [Maximum mark : 6]

The dimensions of a rectangle are : 42×10^{-2} cm and 380×10^{-3} cm

- a) Write down the area of the rectangle using scientific notation $\alpha \times 10^k$, $1 \leq \alpha < 10$. [2]
- b) Write down the area correct to two decimal places. [1]
- c) Write down the area correct to two significant figures. [1]
- d) Calculate the bounds for the number at question b) and c) correct to nearest 0.01 cm [2]

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