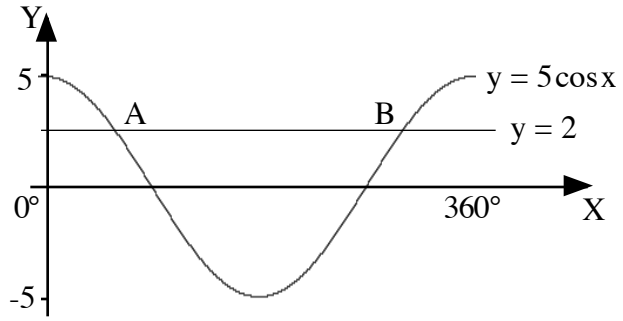
HOME EXERCISE 16

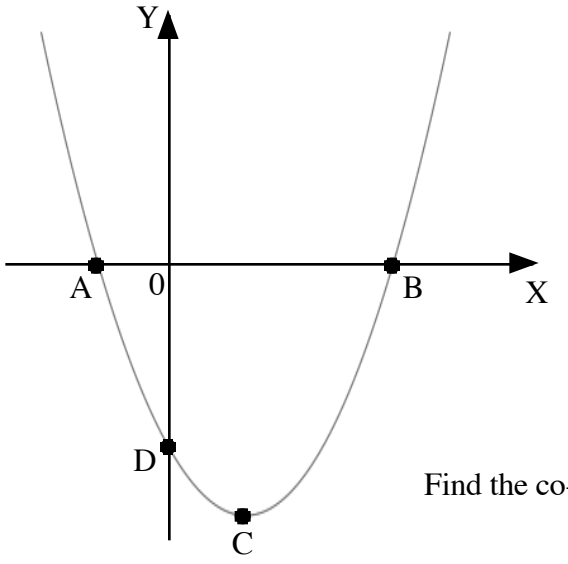
Set out carefully all appropriate working.

1. 

The graphs with equations $y = 5\cos x$ and $y = 2$ are shown.

Find the x co-ordinates of the points of intersection A and B. (4)

2. Solve the inequality for x: $7x + 3 < 4x + 5$ (3)
(leave your answer with a 'top-heavy' fraction)

3. 

The graph with equation $y = x^2 - 4x - 12$ is shown.

The curve meets the axes at the points A, B and D.

Point C is the minimum turning point of the graph.

Find the co-ordinates of points A, B, C and D. (6)

4. Solve the system of equations **algebraically**: $3a + 4b = 14$
$5a + 3b = 5$ (4)

5. Between 2006 and 2007 the value of a house **increased by 25%**.
The value of the house in **2007** was £80 000.

Calculate the value of the house in 2006. (3)

Total 20 marks