



1) Simplify  $\sqrt{48} + 3\sqrt{3}$

2) Find the coordinates of the vertex of the graph

$$y = x^2 + 8x + 10$$

3) Use the formula  $v^2 = u^2 + 2as$  to find the final velocity after 16m when the initial velocity is 10m/s, the acceleration is 3m/s<sup>2</sup>

4) Expand and simplify  $(x + 3)^2(x - 2)$

5) What is the exact value of  $\cos 45^\circ$