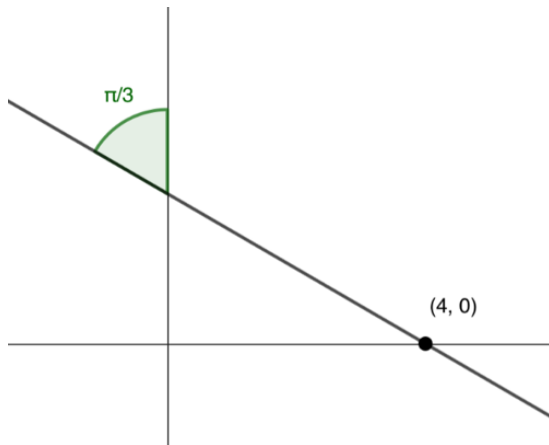# Higher Maths question bank :: Paper 1

10. Equation of a line with angles

1. A line has equation $y - \sqrt{3}\,x + 5 = 0$.
   What angle does it form with the positive x-axis?

2. A line has equation $5y - 5x + 3 = 0$.
   What angle does it form with the positive x-axis?

3. Line L makes an angle of $30°$ counter-clockwise to the positive x-axis, passing through the origin.
   Find the equation of the line perpendicular to L through point (0, 3).

4. Find the equation of the line shown.

5. A line has equation $\dfrac{y}{3} = 1 + \dfrac{1}{\sqrt{3}}x$.
   What angle does it form with the positive x-axis?

6. A line has equation $\sqrt{3}y = 2 + x$.
   What angle does it form with the positive x-axis?

7. Line L makes an angle of $\dfrac{\pi}{3}$ radians, counter-clockwise to the positive x-axis.
   Find the equation of the line perpendicular to L through point (0, -4).