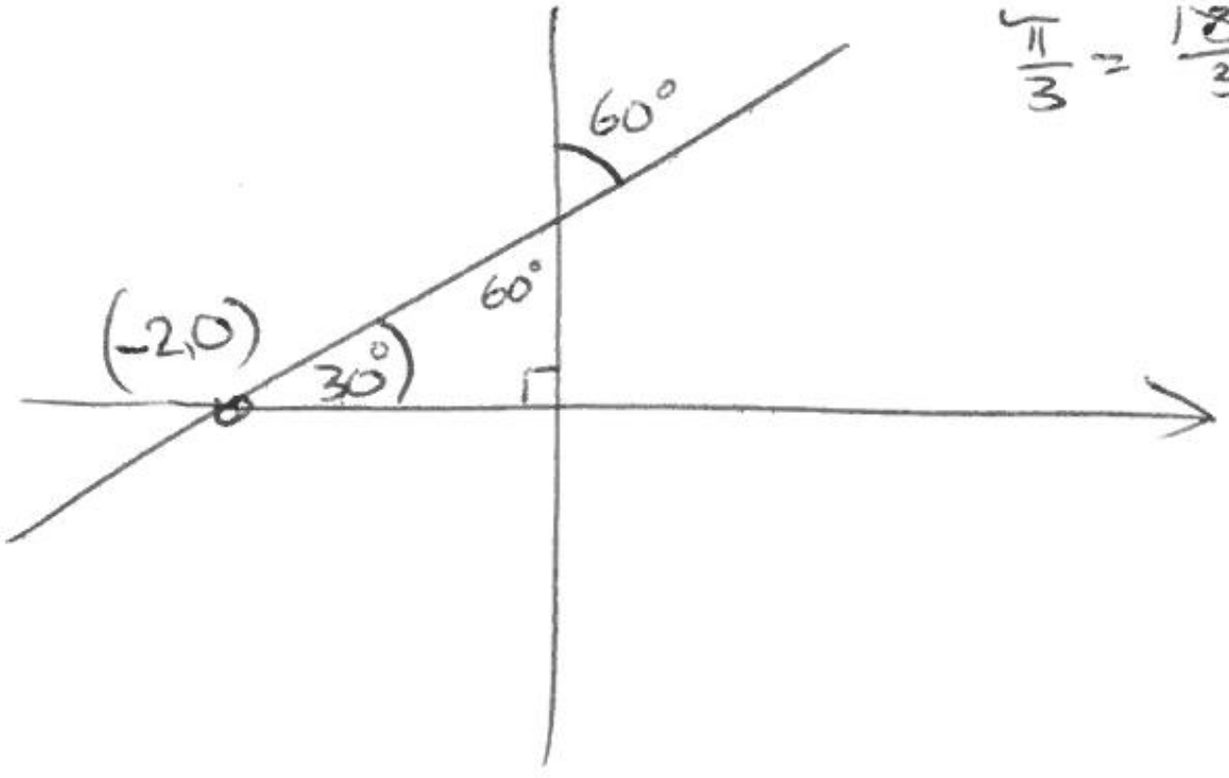
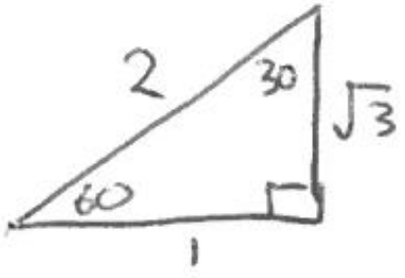
5.



$\frac{\pi}{3} = \frac{180}{3} = 60$



$m = \tan 30 = \frac{1}{\sqrt{3}}$

$y - 0 = \frac{1}{\sqrt{3}}(x+2)$

$\sqrt{3}y = 1(x+2)$

$\sqrt{3}y = x + 2$

Question	Generic scheme	Illustrative scheme	Max mark
5.	$\bullet^1$ use $m = \tan\theta$ $\bullet^2$ evaluate exact value $\bullet^3$ determine equation	$\bullet^1$ $m = \tan\frac{\pi}{6}$ or $m = \tan 30°$ $\bullet^2$ $\frac{1}{\sqrt{3}}$ $\bullet^3$ eg $y\sqrt{3} = x + 2$ or $y = \frac{1}{\sqrt{3}}x + \frac{2}{\sqrt{3}}$	**3**

Notes:

1. Do not award $\bullet^1$ for $m = \tan^{-1}\frac{\pi}{6}$. However $\bullet^2$ and $\bullet^3$ are still available. Where candidates state $m = \tan^{-1}\frac{\pi}{3}$ only $\bullet^3$ is available.
2. Where candidates make no reference to a trigonometric ratio or use an incorrect trigonometric ratio, $\bullet^1$ and $\bullet^2$ are unavailable.
3. $\bullet^3$ is only available as a consequence of attempting to use a tan ratio. See Candidate F
4. Accept $y = \frac{1}{\sqrt{3}}(x+2)$ for $\bullet^3$, but do not accept $y - 0 = \frac{1}{\sqrt{3}}(x+2)$.

Commonly Observed Responses:

Candidate A

$m = \tan\frac{\pi}{3}$ $\bullet^1$ ✖

$m = \sqrt{3}$ $\bullet^2$ ✓ 1

$y = \sqrt{3}x + 2\sqrt{3}$ $\bullet^3$ ✓ 1

Candidate B

$m = \frac{1}{\sqrt{3}}$ (with or without a diagram) $\bullet^1$ ^ $\bullet^2$ ✓ 2

$y = \frac{1}{\sqrt{3}}x + \frac{2}{\sqrt{3}}$

$\bullet^3$ ✓ 1

Candidate C

$m = \tan\theta$ (with or without a diagram) $\bullet^1$ ^

$m = \frac{1}{\sqrt{3}}$ $\bullet^2$ ✓ 1

Candidate D

$m = \tan\theta$ (with or without a diagram) $\bullet^1$ ^

$m = \sqrt{3}$ $\bullet^2$ ✖

$y = \sqrt{3}x + 2\sqrt{3}$ $\bullet^3$ ✓ 1

Candidate E

$m = \tan\theta = \frac{\pi}{6}$ $\bullet^1$ ✖

$m = \frac{1}{\sqrt{3}}$ $\bullet^2$ ✓ 1

Candidate F

$m = \tan\frac{\pi}{3}$ $\bullet^1$ ✖

$m = 60$ $\bullet^2$ ✖

$y = 60(x+2)$ $\bullet^3$ ✖