

①

$$m = \tan 30^\circ$$

$$= \frac{1}{\sqrt{3}}$$

$$y = \frac{1}{\sqrt{3}}x + 4$$

Marking Instructions for each question

Question			Generic scheme	Illustrative scheme	Max mark
1.			•¹ use $m = \tan \theta$ •² evaluate exact value •³ determine equation	•¹ $m = \tan 30^\circ$ •² $\frac{1}{\sqrt{3}}$ •³ eg $y = \frac{1}{\sqrt{3}}x + 4$ or $\sqrt{3}y - 4\sqrt{3} = x$	3
Notes:					
1. Do not award •¹ for $m = \tan^{-1} 30^\circ$. However •² and •³ are still available. 2. Do not penalise the omission of a degree symbol at •¹. 3. Where candidates make no reference to a trigonometric ratio, or use an incorrect trigonometric ratio, •¹ and •² are unavailable. See Candidate A. 4. •³ is only available as a consequence of attempting to use a tan ratio. See Candidate F. 5. •³ is not available for using a gradient of 30. 6. At •³ accept any rearrangement of a candidate's equation where constant terms have been simplified. 7. Accept $y - 4 = \frac{1}{\sqrt{3}}(x)$ but not $y - 4 = \frac{1}{\sqrt{3}}(x - 0)$ for •³.					
Commonly Observed Responses:					
Candidate A - no trig ratio $m = \frac{1}{\sqrt{3}}$ $y = \frac{1}{\sqrt{3}}x + 4$		Candidate B $m = \tan \theta$ $y = \frac{1}{\sqrt{3}}x + 4$		Candidate C $m = \tan \theta$ $y = \sqrt{3}x + 4$	
•¹ ^ •² ✓₂ •³ ✓₁		•¹ ^ •² ✓ •³ ✓		•¹ ^ •² ✗ •³ ✗	
Candidate D $m = \tan \theta = 30$ $m = \frac{1}{\sqrt{3}}$ $y = \frac{1}{\sqrt{3}}x + 4$		Candidate E - no reference to m $\tan 30^\circ = \frac{1}{\sqrt{3}}$ $y - 4 = \frac{1}{\sqrt{3}}(x - 0)$ $y = \frac{1}{\sqrt{3}}x + 4$		Candidate F - not using tan $m = \sin 30^\circ$ $m = \frac{1}{2}$ $y = \frac{1}{2}x + 4$	
•¹ ✗ •² ✓₁ •³ ✓₁		•² ✓ •¹ ✓ •³ ✓		•¹ ✗ •² ✓₂ •³ ✓₂	