AQA – Polar coordinates – AS Further Mathematics P1

1. June/2020/Paper_1/No.11

Sketch the polar graph of

$$r = \sinh \theta + \cosh \theta$$

for $0 < \theta < 2\pi$

for $0 \le \theta \le 2\pi$	[3 marks

O Initial line

2.	Table 18	/2020	/Paper	1	NI - 17
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The polar equation of the circle C is

$$r = a(\cos\theta + \sin\theta)$$

Find, in terms of a, the radius of C.

Fully justify your answer.	[4 marks

3. June/2019/Paper_1/No.3

Point *P* has polar coordinates $\left(2, \frac{2\pi}{3}\right)$.

Which of the following are the Cartesian coordinates of P?

Circle your answer.

[1 mark]

$$(1, -\sqrt{3})$$

$$(-\sqrt{3}, 1)$$

$$(1, -\sqrt{3})$$
 $(-\sqrt{3}, 1)$ $(\sqrt{3}, -1)$ $(-1, \sqrt{3})$

$$(-1, \sqrt{3})$$

4. June/2019/Paper_1/No.4

The line L has polar equation

$$r = \frac{k}{\sin \theta}$$

where k is a positive constant.

(a) Sketch L.

[1 mark]



(b) State the minimum distance between L and the point O.

[1 mark]