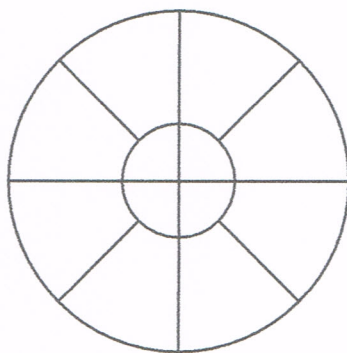


1

For
Examiner's
Use

For the diagram above write down

(a) the order of rotational symmetry,

Answer(a) 4 [1]

(b) the number of lines of symmetry.

Answer(b) 4 [1]

2 (a) Use your calculator to work out

$$\frac{1 - (\tan 40^\circ)^2}{2(\tan 40^\circ)}$$

$$= 0.176326980\dots$$

$$\approx 0.176$$

Answer(a) 0.176 [1]

(b) Write your answer to **part (a)** in standard form.

$$0.176 \approx 1.76 \times 10^{-1}$$

Answer(b) 1.76×10^{-1} [1]

3 Xsara throws a ball three times at a target.

Each time she throws the ball, the probability that she hits the target is 0.2.

Calculate the probability that she does **not** hit the target in any of the three throws.

$$\text{Probability not hit target} = 1 - 0.2$$

$$= 0.8$$

$$\begin{array}{ccccccc} \text{Not Hit} & \text{and} & \text{Not Hit} & \text{and} & \text{Not Hit} \\ 0.8 & \times & 0.8 & \times & 0.8 & = & 0.512 \end{array}$$

Answer 0.512 [2]