E - Trigonometry

Expressing as rsin(θ±α) or rcos(θ±α)	**Key point** $a\cos\theta \pm b\sin\theta$ can be written as $r\sin(\theta \pm \alpha)$ or $r\cos(\theta \pm \alpha)$, where r is positive and angle α is acute. The algebra is easier with matching signs.
Arc length and area of segment	**Key point** $s = \frac{\theta}{2\pi} \times 2\pi r \Rightarrow s = r\theta$ $A = \frac{\theta}{2\pi} \times \pi r^2 \Rightarrow A = \frac{1}{2} r^2 \theta$ where θ is in radians.