


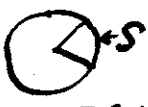
$\omega = 10 \frac{\text{Rev}}{\text{min}}$



Find ω in $\frac{\text{Rad}}{\text{sec}}$

$$\omega = \frac{10 \text{ rev}}{1 \text{ min}} \cdot \frac{2\pi \text{ rad}}{1 \text{ rev}} \cdot \frac{1 \text{ min}}{60 \text{ sec}}$$

$\omega = \frac{\pi}{3} \frac{\text{rad}}{\text{sec}}$




Find Arc s

$$s = r\theta = (5 \text{ ft})(1 \text{ rad})$$

$s = 5 \text{ ft}$

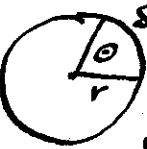
$r = 10 \text{ ft}$



Find ω in $\frac{\text{Rad}}{\text{sec}}$

$$v = r\omega \text{ so } \omega = \frac{v}{r} = \frac{50 \text{ ft/sec}}{10 \text{ ft}}$$

$\omega = 5 \frac{\text{rad}}{\text{sec}}$



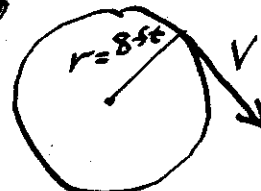
Find θ in radians

$$s = r\theta$$

$$\theta = \frac{s}{r} = \frac{10 \text{ ft}}{2 \text{ ft}} = 5$$

$\theta = 5 \text{ radians}$


$\omega = 10\pi \frac{\text{Rad}}{\text{sec}}$



Find v

$$v = r\omega = (8 \text{ ft})(10\pi \frac{\text{rad}}{\text{sec}})$$

$v = 80\pi \text{ ft/sec}$



Find Radius

$$s = r\theta$$

$$r = \frac{s}{\theta} = \frac{10 \text{ ft}}{\frac{80^\circ}{180^\circ} \cdot \pi} = \frac{10 \text{ ft}}{\frac{4\pi}{9}}$$

$r = \frac{40}{9\pi} \text{ ft}$

$s = r\theta$	$\theta = \frac{s}{r}$	$r = \frac{s}{\theta}$
$v = r\omega$	$\omega = \frac{v}{r}$	$r = \frac{v}{\omega}$
$\theta = \omega t$	$t = \frac{\theta}{\omega}$	$\omega = \frac{\theta}{t}$