11th March

Corbettmaths

Make m the subject

$\pi x = \frac{m+8}{m-1}$

$\pi x(m-1) = m+8$

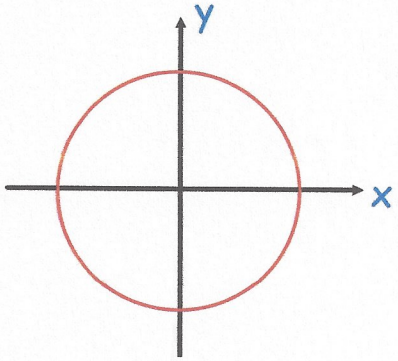
$\pi mx - \pi x = m+8$

$\pi mx - m = \pi x + 8$

$m(\pi x - 1) = \pi x + 8$

$m = \frac{\pi x + 8}{\pi x - 1}$

The circle shown has $x^2 + y^2 = 36$



$r = 6$

$d = 12$

Find the circumference of the circle.
Give your answer in terms of π

$C = \pi \times d$

12π

Find the area of the circle.
Give your answer in terms of π

$A = \pi r^2$

36π

Express $3x^2 + 18x - 5$ in the form $a(x + b)^2 + c$

$3[x^2 + 6x - \frac{5}{3}]$

$3[(x+3)^2 - 9 - \frac{5}{3}]$

$3[(x+3)^2 - \frac{32}{3}]$

$3(x+3)^2 - 32$

Prove every term in the sequence $n^2 - 8n + 21$ is positive

$(n-4)^2 - 16 + 21$

$(n-4)^2 + 5$

Since $(n-4)^2$ is ≥ 0

then $(n-4)^2 + 5 > 0$