
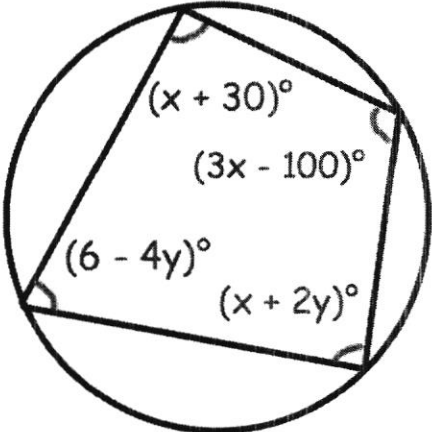


28th June	
<p>A circle has equation</p> $(x + 7)^2 + (y - 1)^2 = 169$ <p>Write down the coordinates of 5 points on the circle.</p>	<div style="text-align: right;">Corbettmaths </div> <p>Centre = $(-7, 1)$ Radius = 13</p> <p>$(6, 1)$ $(-20, 1)$ $(-7, 14)$ $(-7, -12)$ $(5, 6)$</p>
<p>$y = 3x^4 - 9x$</p> <p>Work out $\frac{dy}{dx}$</p>	$\frac{dy}{dx} = 12x^3 - 9$
 <p>Shown is a cyclic quadrilateral.</p> <p>Work out the values of x and y.</p>	$x + 30 + x + 2y = 180$ $3x - 100 + 6 - 4y = 180$ $\Rightarrow 2x + 2y = 150$ $3x - 4y = 274$ $\frac{4x + 4y = 300}{7x = 574}$ $\Rightarrow \underline{x = 82}$ $\underline{y = -7}$
<p>Prove algebraically that</p> <p>$(6n + 1)^2 - (2n - 1)$ is an even number</p> <p>for all positive integer values of n.</p>	$= 36n^2 + 12n + 1 - 2n + 1$ $= 36n^2 + 10n + 2$ $= \underline{2(18n^2 + 5n + 1)} \text{ so even.}$