Name: _____ 5-a-day Further Maths

15th December

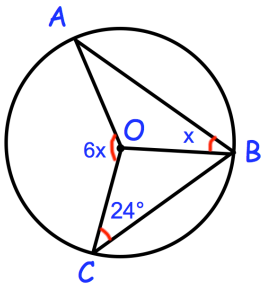
Corbettmaths

Express $10x^2 + 20x + 19$

in the form $a(x + b)^2 + c$

Hence find the maximum value of

$$\frac{1}{10x^2 + 20x + 19}$$



Find x

The equation of a curve is
$y = (x - 2)(x + 6)$

P is a point on the curve.
The tangent to the curve at P has gradient –5

Work out the coordinates of P