

31st Jan



Corbettmaths

Given

$$y = 4x^5 + \frac{4}{x^3}$$

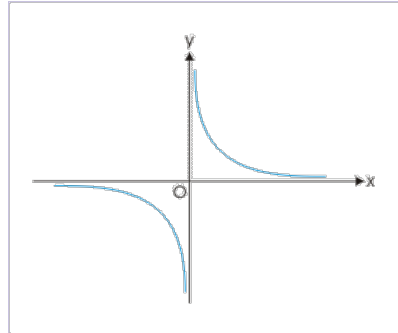
Find $\int y \, dx$

Shown is the curve with equation

$$y = \frac{1}{x} \quad x \neq 0$$

Sketch on the same diagram,

$$y = -\frac{1}{x} \quad x \neq 0$$



The curve C has equation

$$y = \frac{1}{3}x^3 - \frac{1}{4}x^2 - x - \frac{1}{12}$$

Show the point P (1, -1) lies on C

Find the equation of the tangent to C at P, giving your answer in the form $y = mx + c$

The point R also lies on C.

Given the tangent to C at R is perpendicular to the tangent to C at P.

Find the coordinates of R, given $x > 0$