Name: _____ 5-a-day Core 1

11th May

Corbettmaths

Express

$$\frac{4}{2\sqrt{5}+1}$$

in the form $a + b\sqrt{5}$ where a and b are rational.

The line L1 has gradient $\frac{4}{5}$ and passes through the point (8, 10).

The straight line L2 has equation $x + y = 2$

Find where the two lines intersect

Given

$$y = 3x^5 + 2\sqrt{x} + 3$$

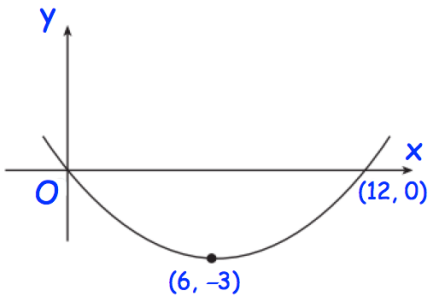
Find

$$\frac{d^2y}{dx^2}$$

Shown is the graph y = f(x).

The graph of y = f(x) + a has a minimum point at (6, 0).

Find a



The first three terms of an arithmetic progression are
$3x, 10, 8 - x$

What is the sum of the first ten terms of the progression?