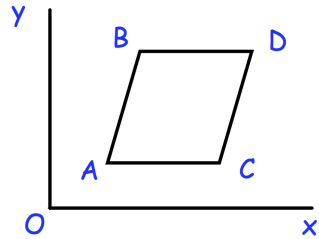


21st December

Corbettmaths

Simplify

$$(16x^4)^{\frac{3}{2}}$$



ABCD is a rhombus

The coordinates of B are (4, 15)

The equation of diagonal AD is $y = \frac{1}{2}x + 6$

Find the equation of diagonal BC

Material A has a density of 3.8g/cm^3 to the nearest 0.1g/cm^3

Material B has a density of 6g/cm^3 to 1 significant figure.

600g of Material A and 1kg of Material B form Material C.

Both of these masses are given to the nearest 100g.

Work out the lower bound for the density of Material C.

Find the coordinates of the points where the curve $y = x^2 - 3x + 5$ and the line $2x - y + 1 = 0$ meet.

Walter picks two integers with a difference of 3.
Prove the difference between the squares of the integers is three times the sum of the integers.