

ADE and ACB are similar triangles.

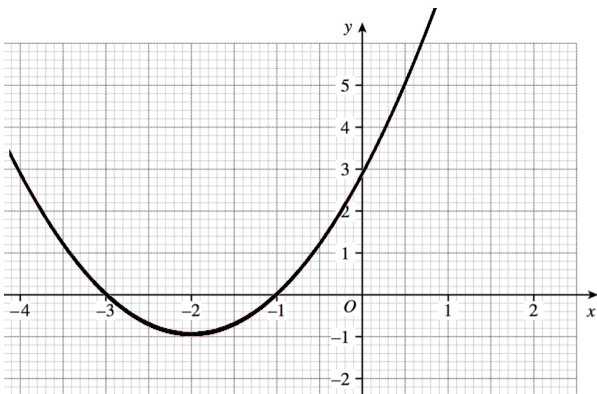
Find the length CD.

The speed of a particle is 4.2×10^5 m/s
How far does it travel in a day?

Give your answer in kilometres and in standard form.

Show that the line $y = 3x + 1$ is perpendicular to the line $x + 3y + 9 = 0$

Shown below is the graph of $y = x^2 + 4x + 3$



Write down the roots of $x^2 + 4x + 3 = 0$

Estimate the roots of $x^2 + 4x + 3 = 1$