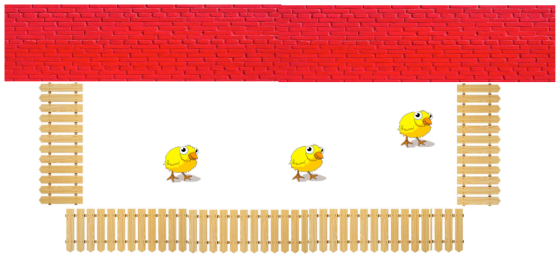
Name: _____ 5-a-day Further Maths

18th November

Corbettmaths

Solve $5x^2 + 2x - 8 = 0$ using completing the square



Rachel makes a rectangular pen for her chickens.
One side of the pen is a brick wall and the other three sides are made using 50 metres of wooden fencing.

The width of the pen is x metres.

Show the area is given by

$A = 50x - 2x^2$

Using differentiation, find the maximum value of A.

Solve

$2cos^2\theta - cos\theta = 1 + sin^2\theta$

for $0° \leq x \leq 360°$