



Charlotte invests £5000.
The bank pays 10% interest for the first year and then $y\%$ compound interest every year after that.

After three years, Charlotte has £5610.55

Calculate y

The distance between the points $(-3, -4)$ and $(q, 5)$ is 15.

Find the possible values of q .

Use completing the square to find the equation of the line of symmetry of the curve $y = x^2 + 8x + 5$

The minute hand of a clock is 8cm long. The hour hand is 1.5cm shorter.

Calculate the distance between the tips of the hands at 8 o'clock.

Find the exact values of w

$$3^{w^2} = 9 \times 27^{w+5}$$