

4th March



Corbettmaths

Expand and simplify

$$(3 + \sqrt{2})(\sqrt{10} + \sqrt{3})$$

2	2	3	4	5	6	6	7	9
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Rebecca has 9 cards, each with a number on it. She picks three cards at random, without replacement. Rebecca adds the three numbers to get a score.

Calculate the probability that the score is an even number

Given

$$f(x) = \frac{x + 1}{3}$$

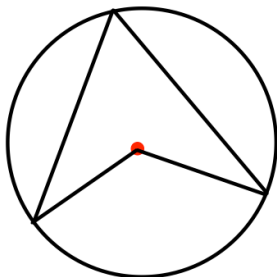
$$g(x) = 8x + 9$$

Solve

$$f^{-1}(x) = g(x)$$

Find an expression, in terms of  $n$ , for the  $n$ th term of the quadratic sequence

5   16   31   50



Prove that the angle at the centre is twice the angle at the circumference.