

8th March

Corbettmaths

Find the set of values of x for which

$$7x^2 + 6x - 16 < 0$$

Solve the simultaneous equations

$$x + y = 1$$

$$y = x^2 - 1$$

Solve

$$4^{x+2} = 8^{3x-5}$$

The quadratic equation
 $(2k - 1)x^2 + (k + 3)x + k = 0$
has two unique real roots.

Find the possible values of k .

Prove

$$S_n = \frac{n}{2} [2a + (n-1)d]$$