



Caolán picks a five digit odd number.
The second digit is greater than 3.
The fourth digit is a non-zero cube number
The first digit is a prime number.

How many different numbers could he pick?

Over the course of a year, the ratio of chess matches that James wins to loses is $x^2 + x : x + 1$

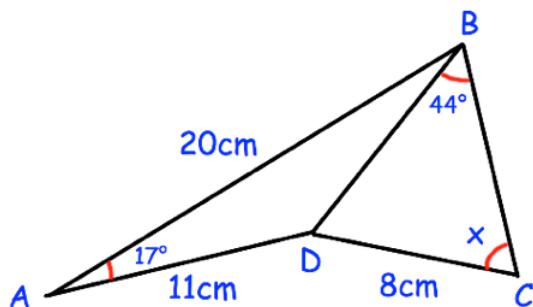
Show that the fraction of matches that James loses is $\frac{1}{x + 1}$

James loses 5% of his matches.

How many matches did James win?

Find A, B, C and D

$$x^3 - 6 \equiv (x - 2)(Ax^2 + Bx + C) + D$$



Find the possible values of x