



Prove that the sum of four consecutive whole numbers is always even.

The first five terms of a quadratic sequence are

-7 -1 9 23 41

Find the nth term

An object has a mass of 120kg, correct to two significant figures.
The density of the material it is made from is 8.4g/cm^3 , correct to one decimal place.

Work out the smallest possible volume of the object. Give your answer to three significant figures.

Julie puts some white, pink and green counters into an empty box.
The ratio of white to pink to green counters is 1:3:1.
Julie takes at random, 2 counters from the box, one at a time, without replacement.
The probability that she takes two white counters is $\frac{3}{95}$

How many white counters did Julie put in the box?

$$f(x) = \frac{5x + 2}{6}$$

Find $f^{-1}(x)$