

1st December

Corbettmaths

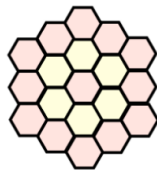
Prove that the sum of four consecutive whole numbers is always even.



Pattern 1



Pattern 2



Pattern 3

How many tiles are needed to make pattern number 12?

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 has an empty container.
She puts some white, pink and green counters into the 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 $f^{-1}(x)$