Express 70 as a product of prime factors in the form $2^{a} \times 3^{b} \times 5^{c} \times 7^{d}$. What are the values $a, b, c$ and $d$ ?

Here is a pattern made from dots:

a) Will there will be a pattern with 59 dots?

You must explain your answer.
a) Express the perimeter in terms of $x$ and $y$.
b) If the perimeter is 48 cm . Find the value of $x$ when $y=3$.


## Expand:

a) $(2 x-5)(x+3)$

## Factorise:

b) $\left(10 y^{2}-35 x y\right)$

Solve: $8 x+7=12 x+6$


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