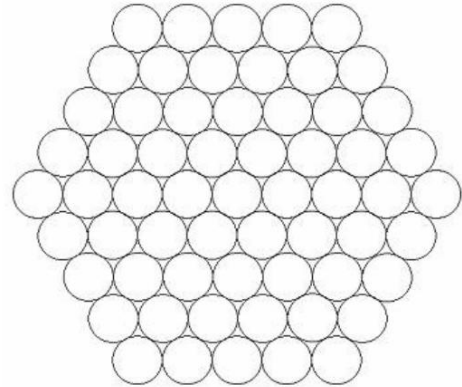


Cables can be made stronger by compacting them together in a hexagonal formation.

Here is a 'size 5' cable made up of 61 strands:



How many strands are needed for a size 10 cable?

How many for a size n cable? Can you justify your answer?

Once you've thought about the problem yourself, look at the diagrams below which show four possible approaches.

Explain how you could use each of the diagrams to work out the number of strands for a size 5, size 10 and size n cable.

