

7. Calculate the VOLUME of Shape 2. Show FULL working.

8. **Sketch three (3) more solid shapes with the SAME VOLUME as Shape 2 (using as ruler and a pencil).**

Show with FULL working the volume of each of these shapes.

Task 2: Chicken Run

ALL WORK TO BE SHOWN

A farmer has 36 metres of wire netting to make a fence for his chickens.

i) What would be the dimensions of the chicken run that would give the chickens the greatest area for exercise?

Show all your working out with labelled diagrams and reasoning.

ii) If each chicken requires at least 3 square metres (3m^2) to be a happy and productive chicken, how many chickens would be able to fit in this chicken run?

iii) The farmer's wife sees a better way to fence in the chickens. She suggests using an existing wall of the tractor shed for one side of his chicken run.

- Draw a diagram below and label clearly

iv) What will be the area of the best chicken run now?

v) How many chickens could now be kept?

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