Year 7 Assessment Task

Task 1: Measurement Task

SECTION 1: Perimeter and Area

1. Draw a neat diagram of a rectangle, using a ruler and a pencil. Clearly mark all equal sides and correctly mark the right angles.
   Choose the dimensions of your rectangle, and indicate these on your diagram (**NOTE: drawing does not need to be to scale)**
   This is "Shape 1"

2. Calculate the PERIMETER of Shape 1. **Show full working.**

3. Sketch three (3) more plane shapes with the SAME PERIMETER as Shape 1 **(using a ruler and a pencil).**
   Show with FULL working the perimeter of each of these shapes.

4. Calculate the AREA of Shape 1. **Show FULL working.**

5. Sketch three (3) more plane shapes with the SAME AREA as Shape 1.
Show with FULL working the area of each of these shapes.

SECTION 2: Volume

6. Draw a neat diagram of a rectangular prism, using ruler and pencil.
Choose the dimensions of your prism, and indicate these on your diagram
(**NOTE: these dimensions do not need to be accurate**).
This is "Shape 2"

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.

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.

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

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.

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

How many chickens could now be kept?

Show all your working out.

TASK 3: MONEY

Cassie found some coins in her pocket. She had only 50 cent, 20 cent, 10 cent and 5 cent coins but she had at least one of each coin.

Altogether she had $2.00 in her pocket.

1. Can you show five different ways that Cassie could have $2.00 in her pocket?

2. What if Cassie had nine coins in her pocket – what could the coins have been?

3. Cassie needs to give her brother exactly 45 cents. **Using your answer to question 2**, would she be able to give him the money? How do you know this?