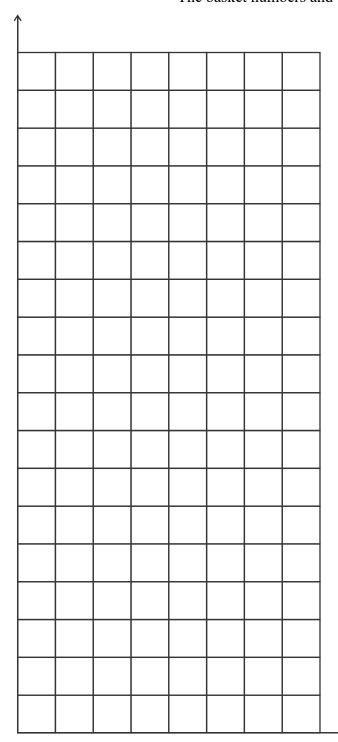
## Mushroom Hunt

## Investigation Guide B

There are two sets of numbers in this problem.

The basket numbers and the mushroom numbers.



When mathematicians find two sets of numbers together, they make them into pairs:

$$(1, 1)$$
  $(2, 2)$ ,  $(3, 4)$ ,  $(4, 16)$ ,  $(5, 32)$ ,  $(6, 64)$ 

The numbers in each of these pair are in an order.

- First is the basket number.
- Second is the mushroom number.

When the order matters in a pair of numbers they are called Ordered Pairs.

• What would be the ordered pair for the time when Goldilocks went mushrooming with the three (3) pigs and the three (3) bears?

Ordered pairs can be shown as points (dots) on a graph.

So that everyone knows the order, the first number is along the bottom of the graph and the second number is up the left side.

• Write the ordered pair for the time when Goldilocks went mushrooming with the three (3) pigs and the three (3) bears.

You are going to make a graph of these ordered pairs. You can ask for help.

**Firstly** predict what you think the graph might look like if the dots were joined. Sketch your prediction in your journal.

Now plot the points on this grid.

Join the dots. Try to make a smooth curve. Just do the best you can. A clue is to turn the paper so your hand is inside where the curve is going to be.

When viruses reproduce their pattern is just like this. Look back at your mushrooms and pretend they are viruses. Now imagine they reproduce the 'next plate' every minute. Imagine how many there would be on the 15 minute plate!! Wow!

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Mathematics Task Centre Task 38