Lesson 1: Let's Think

Mr McDonald has a farm. He is building a new pig enclosure. The enclosure needs to have an area of 30m^2 plus 2m^2 per pig.

Mr McDonald wants to work out the area he would need for a different amount of pigs.

Can you write a sentence in words that Mr McDonald can use to work out the area he needs?

Can you write this as a formula using 'a' to represent the area and 'p' to represent the number of pigs?

If Mr McDonald had 10 pigs, what area would he need? How about for 30 pigs?

Lesson 1: Let's Apply

The amount of time chickens are cooked for depends on their weight.

Cooking time = 20 minutes plus an extra 40 minutes for each kilogram.

Write this as an algebraic formula, with c = cooking time plus k = number of kilograms.

How long would it take to cook a chicken that is 3kg? How about one that is 4.5kg?

Lesson 2: Let's Think

$48 = x + 37$

$103 + 2b = 151$

What are the values of x and b?

Match the equation with the value for x .

40 + x = 48   x = 20

100 = 4x + 20   x = 9

50 + 2x = 64   x = 7

99 = 11x   x = 8

Lesson 3: Let's Think

Look at this sequence

4, 7, 10, 13, 16….

Can you create an equation to enable you to work out what the 70th number will be in the sequence?

How about the 120th?

Lesson 3: Let's Apply

Lily and Simon like looking at birds on their local lake.

When they arrive, there are already 22 birds on the lake.

Birds arrive in groups of 3.

30 minutes later, there are 85 birds on the lake.

a)   Assuming no birds have left, how many groups of birds arrived in the 30 minutes that Lily and Simon were watching?

b)   Assuming no birds leave the lake, can you write a formula that would allow Lily sand Simon to work out how many groups of pairs have arrived if they just count the number of birds they now see?