Mathematics

Calculations with variables

Downloadable Resource

Mr Maseko

Try this

What number could Yasmin be thinking of if her final answer is between:

a) 50 – 100

b) 100 – 150

c) 240 – 260

I think of a number. I divide my number by 2, then add 6 and finally multiply by 4.

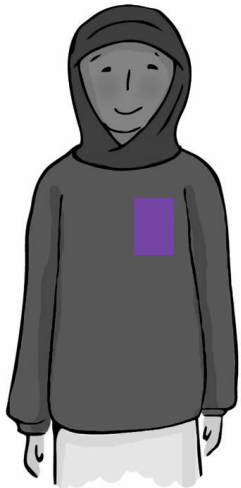Hint: try different starting numbers and see what you get.

How else could you express Yasmin's statement?

Connect

Expressing Yasmin's statement

> I think of a number. I divide my number by 2, then add 6 and finally multiply by 4.
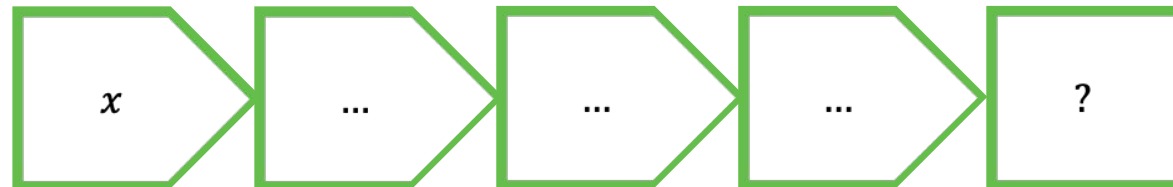
x → ... → ... → ... → ?
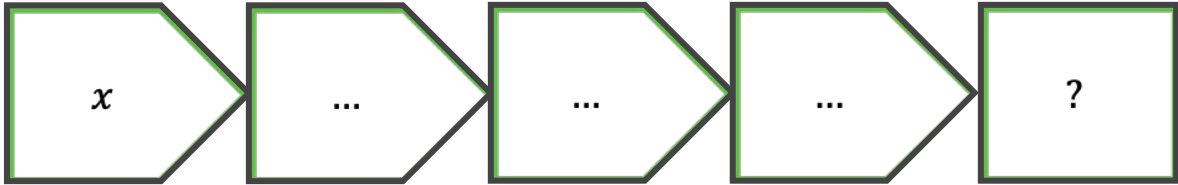
Connect

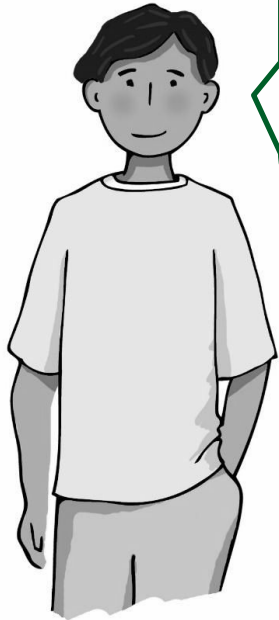Show Cala's statement on a function machine then write a matching calculation.

> I think of a number. I add 2 then square the answer. I then subtract 1, and finally divide my number by 2.

Independent task

Which of the calculations match Antoni's statement? For those that don't, write a correct matching statement.

I think of a number. I then subtract 5 and multiply the answer by 6. Next I add 5 and finally divide by 6.

$$\frac{(x-5) \times 6 + 5}{6}$$

$$(x-5) \times (6+5) \div 6$$

$$(x-5) \times 6 + 5 \div 6$$

$$\frac{5 + 6 \times (x-5)}{6}$$

$$\frac{6 \times (x-5) + 5}{6}$$

$$\frac{(x-5) \times 6}{6} + 5$$

Explore

For each of the following calculations write a matching "think of a number" statement.

$7 \times x + 2$

$7 \times (x - 2)$

$(7 + x) \times 2$

$2 \times x - 7$

$7 + 2 \times x$

$7 \times (x + 2)$