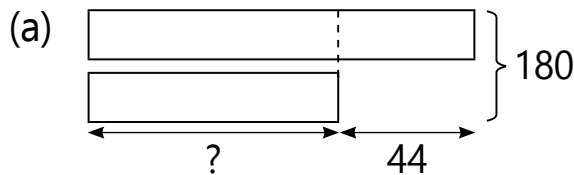


Name _____ Date _____

Example 4A

Study each model diagram. What is the missing number?

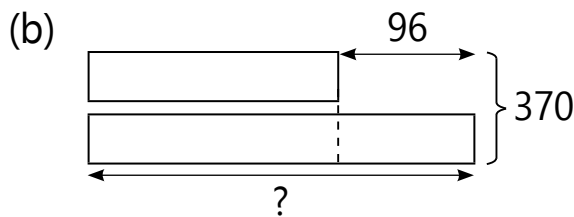


To find the smaller quantity, we start by subtracting 44 from 180, resulting in a value that is twice the smaller quantity.

$$180 - 44 = 136$$

$$2 \text{ units} = 136$$

$$1 \text{ unit} = 136 \div 2 = 68$$

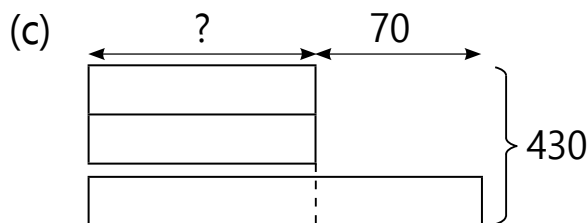


To find the larger quantity, we start by adding 96 to 370, resulting in a value that is twice the larger quantity.

$$370 + 96 = 466$$

$$2 \text{ units} = 466$$

$$1 \text{ unit} = 466 \div 2 = 233$$



To find the smaller quantity, we start by subtracting 70 from 430, resulting in a value that is 3 times the smaller quantity.

$$430 - 70 = 360$$

$$3 \text{ units} = 360$$

$$1 \text{ unit} = 360 \div 3 = 120$$

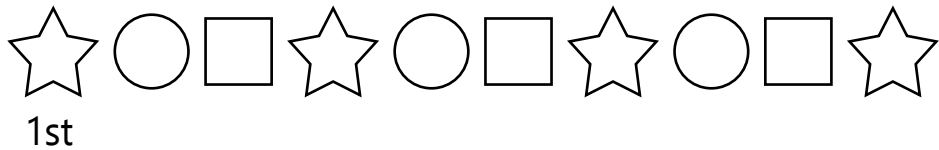
Example 7B

Solve the following problem. Show your working clearly.

Jacob constructs a pattern using different shapes as shown below.

The pattern continues.

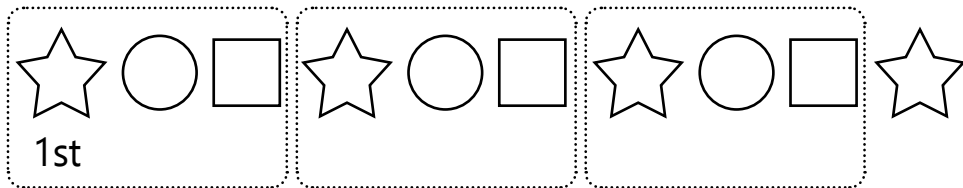
Which is the 50th shape in the sequence?



Solution


We look for the pattern of remainders and then **simplify the problem** using that approach.


A set of 3 shapes repeats.



$$50 \div 3 = 16 \text{ R } 2$$

50th shape \rightarrow 2nd shape in each set

2nd shape in the set: 

The 50th shape in the sequence is .

Name _____

Date _____

Example 11A

Solve the following problem. Show your working clearly.

A playground consists of a square play area and a rectangular sandbox as shown below.
What is the perimeter of the playground?

Solution

This problem involves **visualising** the perimeter of the figure formed by 2 shapes as equivalent to the perimeter of the larger rectangle around it.

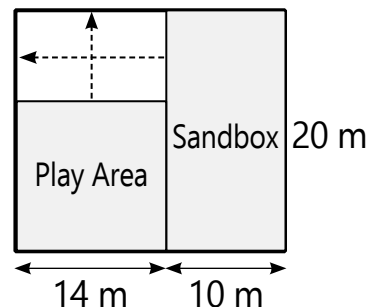
Length of larger rectangle

$$= 14 \text{ m} + 10 \text{ m} = 24 \text{ m}$$

Perimeter of larger rectangle

$$= 24 \text{ m} + 24 \text{ m} + 20 \text{ m} + 20 \text{ m}$$

$$= 88 \text{ m}$$



The perimeter of the playground is 88 m.