

Logo Language – Solving Turtle Questions

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Starting with Logo Language

- ▶ You can start programming the movement of turtle by using the following web link:

<http://turtleacademy.com/learn.php>

- ▶ A very simple language consisting of very few commands.
- ▶ **Forward n** where **n** is **distance** turtle will cover in **forward direction**. So for example, **Forward 10** means turtle will move 10 units distance in forward direction.
- ▶ **Backward n** where **n** is **distance** turtle will cover in **backward direction**. So for example, **Backward10** means turtle will move 10 units distance in backward direction.

Starting with Logo Language

- ▶ **Right n** where **n** is **angle** at which turtle will **turn in right hand direction**. So for example, **Right 90** means the turtle will turn 90 degrees in right hand direction.
- ▶ Important to remember **Right 90 = Left 270**
- ▶ **Left n** where **n** is **angle** at which turtle will **turn in left hand direction**. So for example, **Left 90** means the turtle will turn 90 degrees in left hand direction.
- ▶ Important to remember **Left 90 = Right 270**
- ▶ **Penup** when some movement or turn is to be performed without tracing it.
- ▶ **Pendown** when some movement or turn is to be performed by tracing it.

Starting with Logo Language

- ▶ **Repeat n** It is a programming code used to repeat one same line of code or multiple same lines of code for n times. Where n is the number of times we want to repeat for example 3 or 4 or 8 etc.
- ▶ **Endrepeat** It tells the **end** of a **Repeat n** statement. It must be used after each **Repeat n** statement.

Example 1

- ▶ Write down the Logo Language instructions for drawing the following shape.

Pendown

Forward 2

Right 90

Forward 4

Right 90

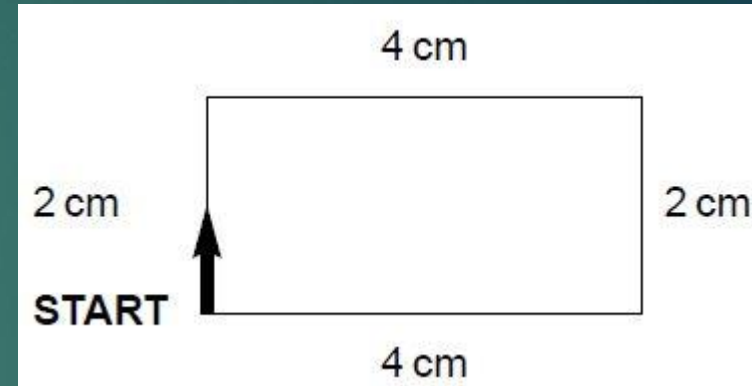
Forward 2

Right 90

Forward 4

Right 90

Penup



Problem Example 1 – Alternative Code

- ▶ The alternative code for problem 1 can be as below:

Pendown

Repeat 2

Forward 2

Right 90

Forward 4

Right 90

Endrepeat

Penup

Example 2

- ▶ Write down the Logo Language instructions for drawing the following shape.

Pendown

Forward 4

Left 90

Forward 4

Left 90

Forward 2

Left 90

Forward 2

Right 90

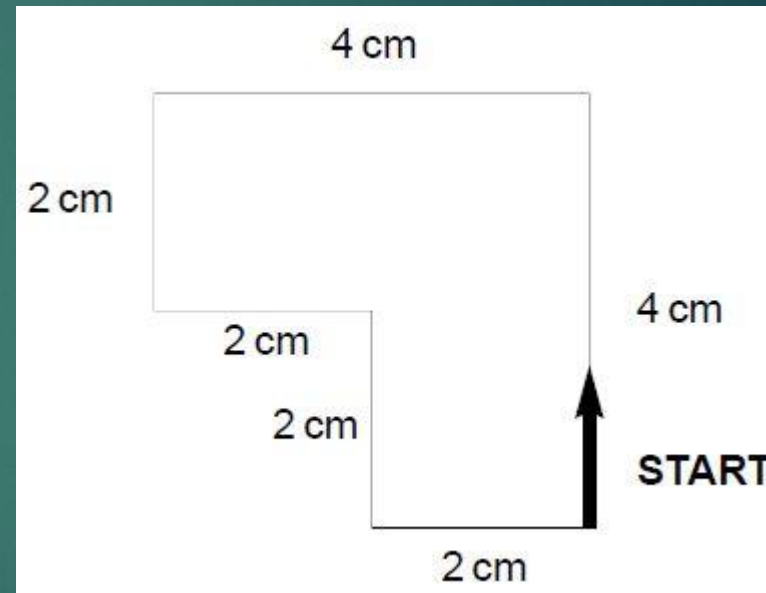
Forward 2

Left 90

Forward 2

Left 90

Penup



Example 3

- ▶ Write down the Logo Language instructions for drawing the following shape.

Pendown

Left 90

Forward 40

Right 90

Forward 70

Right 90 or **Repeat 2**

Forward 50 **Right 90**

Right 90 **Forward 50**

Forward 50 **Endrepeat**

Left 90

Forward 20

Right 90

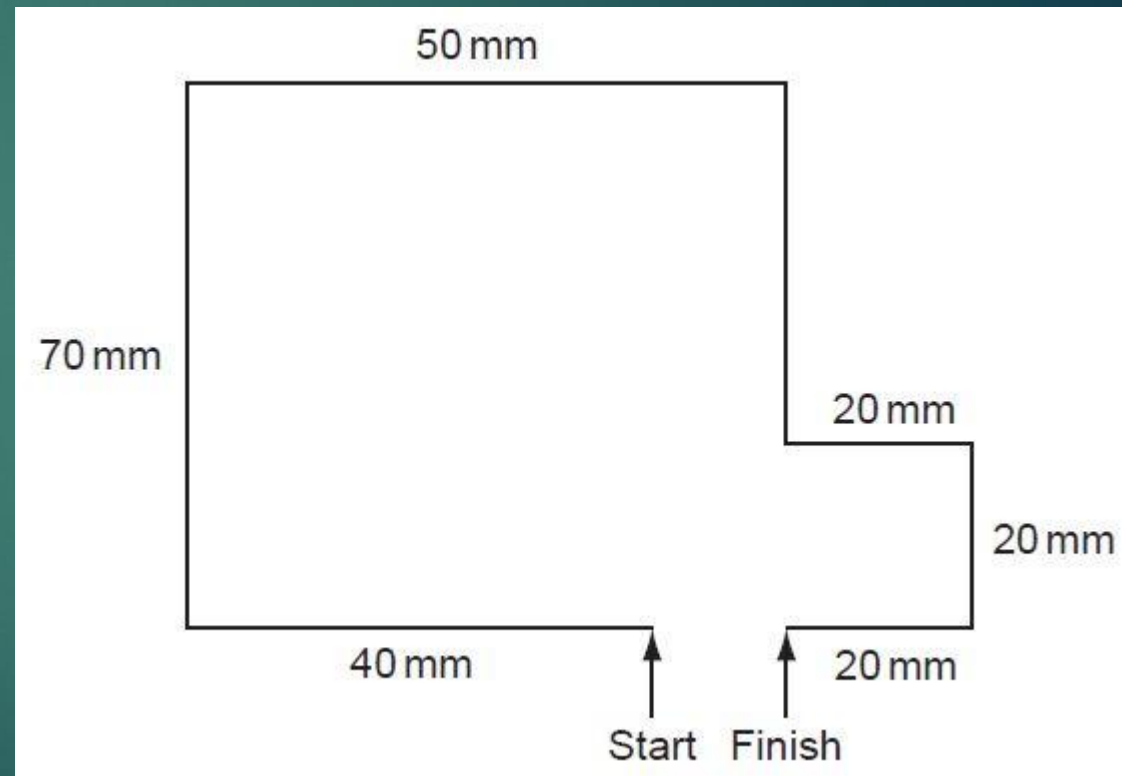
Forward 20

Right 90

Forward 20

Left 90

Penup



Example 4

- Write down the Logo Language instructions for drawing the following shape.

Pendown

Left 45

Forward 28

Right 45

Forward 20

Right 135

Forward 28

Left 90

Forward 28

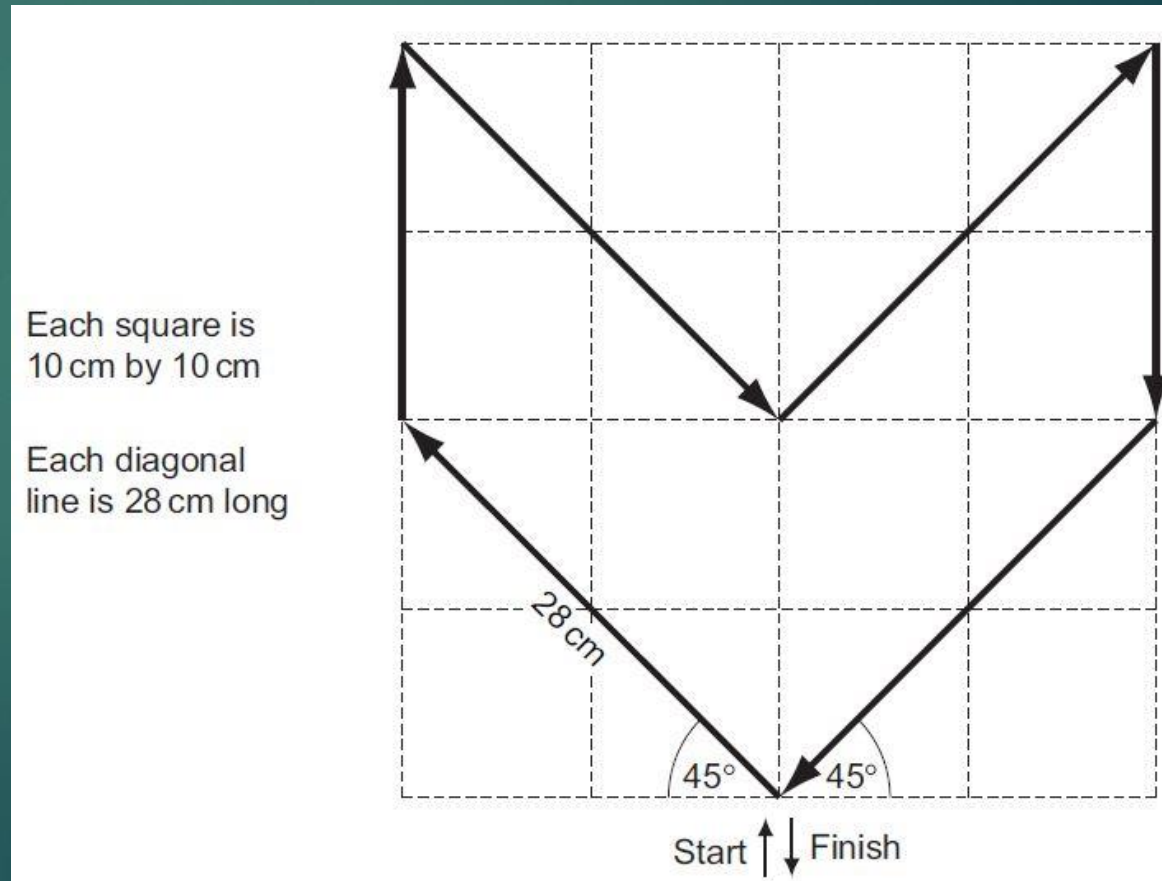
Right 135

Forward 20

Right 45

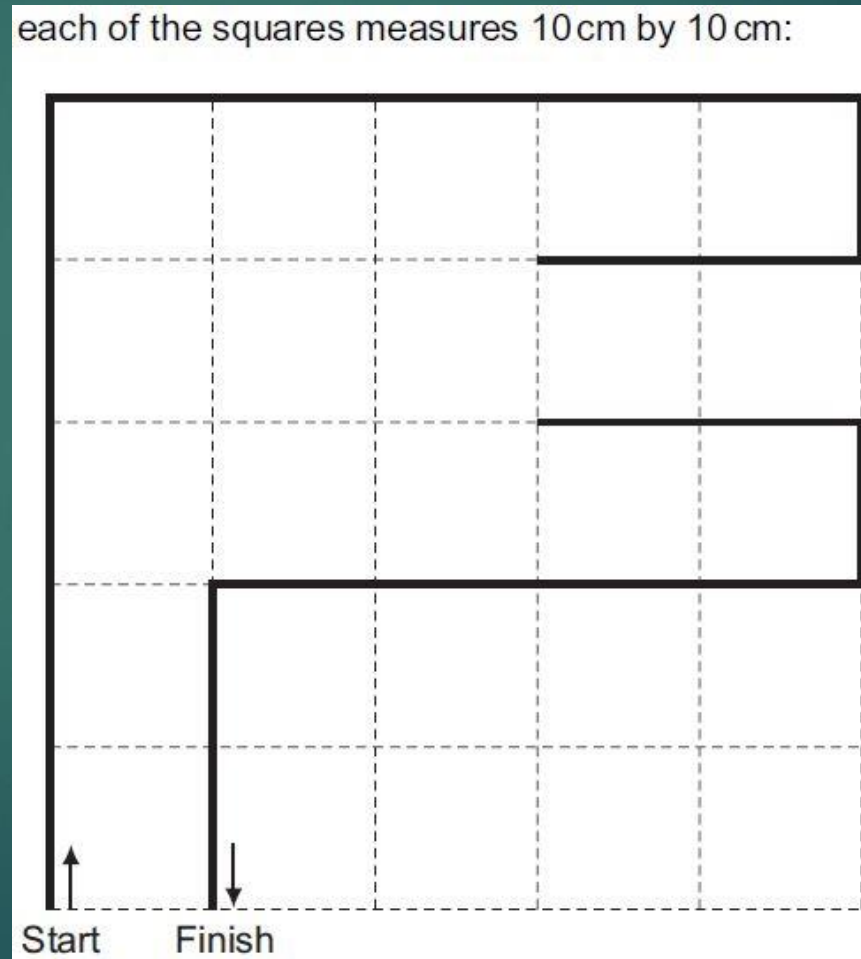
Forward 28

Penup



Practice Problem 1

- ▶ Write down the Logo Language instructions for drawing the following shape.



Practice Problem 2

- ▶ Write down the Logo Language instructions for drawing the following shape.

(Each square in the drawing is 10 cm by 10 cm.)

