Subject: Mathematics

Topic: Symmetry and transformation

Sub-topic: Translation

Level: S.1

Background information:
This is the fourth lesson in a series of 6.
Students have already learned how to describe the translation of plane figures.

Learning objectives:
Content:
Students should be able to describe the translation of plane figures.
Language:
Students should be able to read, write and talk about the translation of plane figures in the following language form:
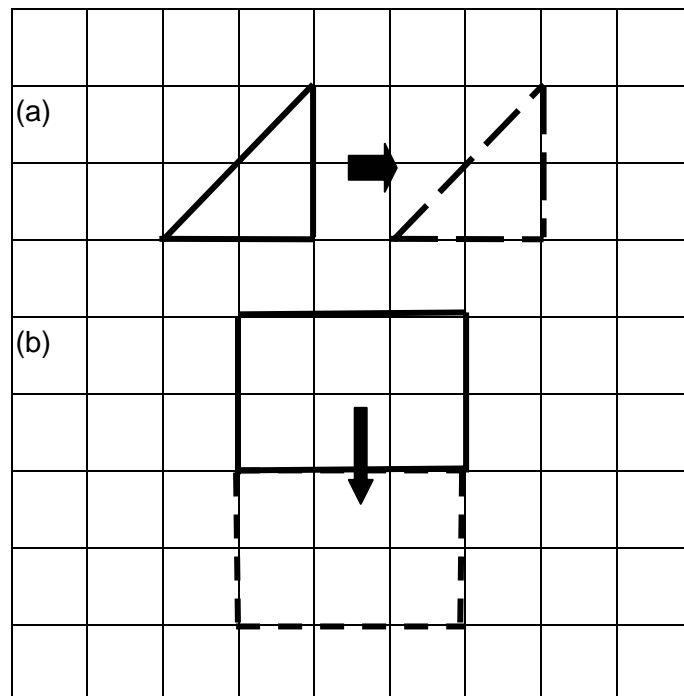*Move the figure 3 units to the right and then 4 units downwards.*
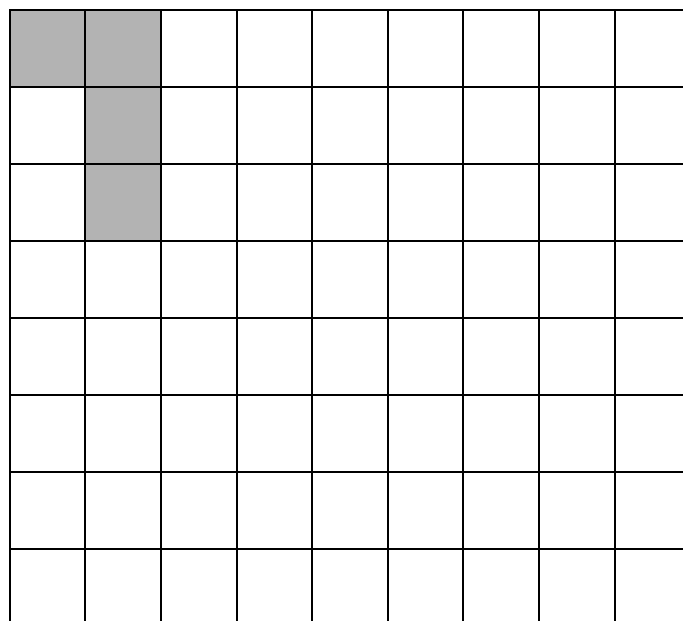
NAME:_____NO.: _____CLASS:_____DATE:_____

Translation is the process through which an object moves in a _____ and/or _____ direction.   It changes the _____ of an object.   The _____, the _____ and the _____ remain unchanged.
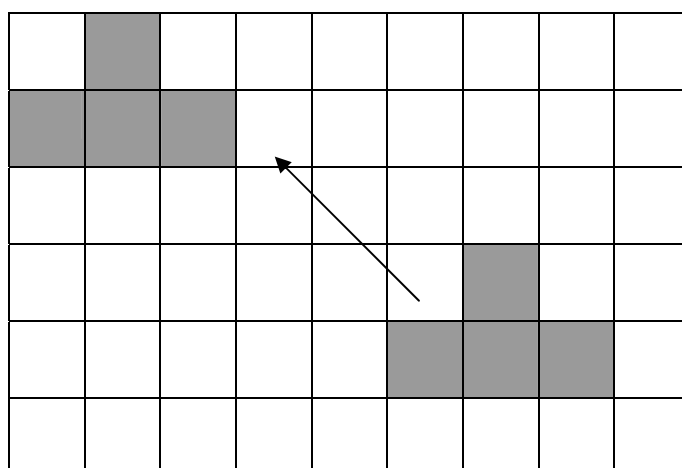

1.   Describe the translation of the figures above.
      (a) The triangle moves _____ units to the _____.
      (b) The rectangle moves _____ units _____.

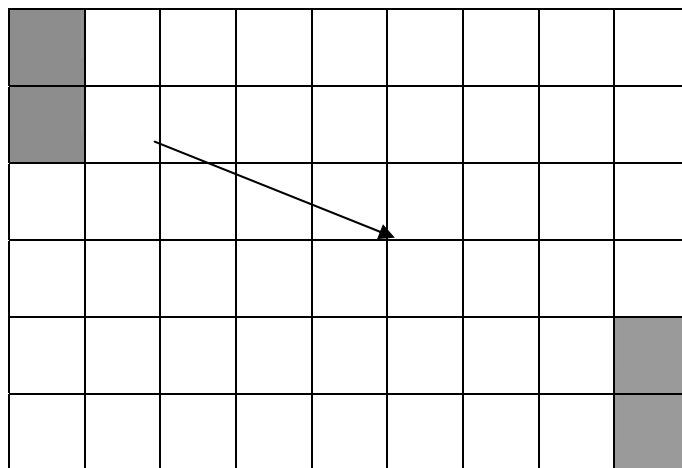2.   Translate the figure according to the instruction below.

      Move the figure 4 units to the right and then 3 units downwards.

3. Describe the translation of the figure below.

_____

_____

_____

_____

4. Describe the translation of the figure below.

_____

_____

_____

_____

NAME:_____NO.: _____CLASS:_____DATE:_____
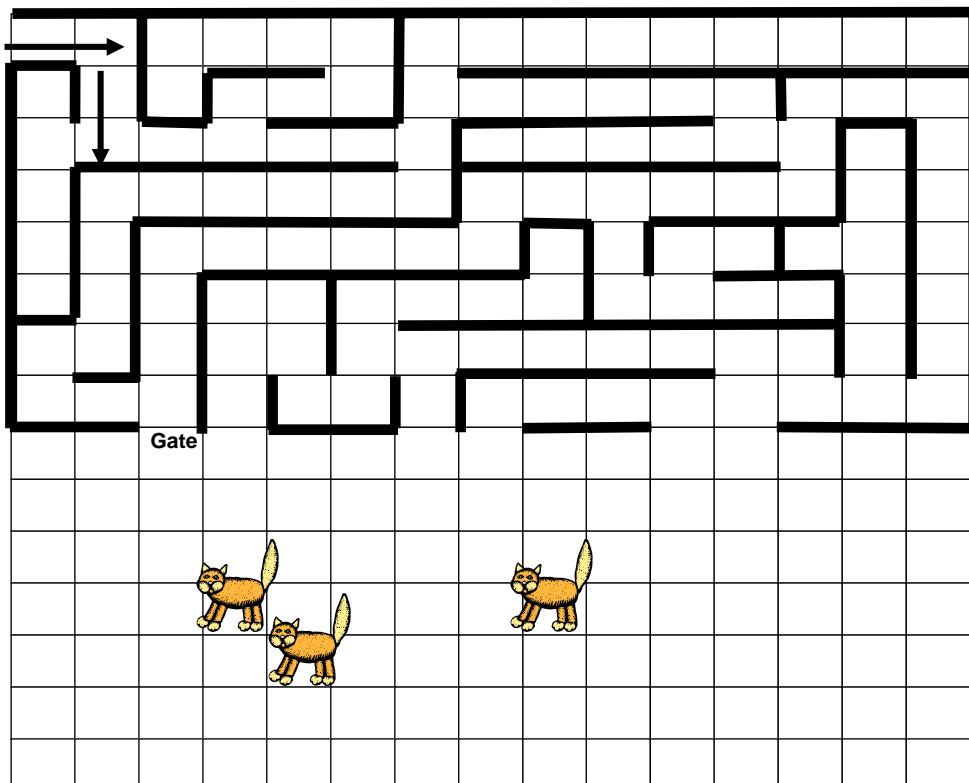
Student A's Worksheet

A mouse needs to find its way through a maze to eat a piece of cheese.   You and your partner each have a part of the maze.   Follow the steps below.

1.   Look at the part of the maze you have.

2.   Help the mouse to move in both horizontal and vertical directions to reach the Gate.

3.   Tell Student B the way to move the mouse to the Gate.
      For example: *Move 2 units to the right and then 2 units downwards.*

4.   Now, listen to Student B's instructions to help the mouse to reach the cheese.   Move the mouse in the grid map according to Student B's instructions until the mouse reaches the cheese.

5.   Start again at the Gate if the mouse meets a cat.

The first step is done for you.

1.   *Move 2 units to the right and then 2 units downwards.*

Starting Point

Gate

S.1 Mathematics
Symmetry and Transformation
Translation
Worksheet 2

NAME:_____NO.: _____CLASS:_____DATE:_____

Student B's Worksheet

A mouse needs to find its way through a maze to eat a piece of cheese.   You and your partner each have a part of the maze.   Follow the steps below.

1.   Look at the part of the maze you have.
2.   Suppose the mouse is now at the Gate, help the mouse to move in both horizontal and vertical directions to reach the cheese.
3.   Listen to Student A's instructions to help the mouse to reach the Gate.   Move the mouse in the grid map according to Student A's instructions until the mouse reaches the Gate.
4.   Start again at the Starting Point if the mouse meets a cat.
5.   Now, tell Student A the way to move the mouse to the cheese.
      For example: *Move 2 units to the right and then 2 units downwards.*

The first step is done for you.
1.   *Move 2 units to the right and then 2 units downwards.*