## Convert between Tables, Graphs, Mappings, and Lists of Points


(1) Match the image with its corresponding definition.Determine to which positions Emilia could have started.Explain how to represent the input and output of a function with a graph.

Plot the given points in a graph.

Decide which graph corresponds to which mapping diagram.

Determine the coordinates of the ordered pairs.
with lots of tips, answer keys, and detailed answer explanations for all of the problems.

The complete package, including all problems, hints, answers, and detailed answer explanations is available for all sofatutor.com subscribers.

## Match the image with its corresponding definition.

Fill in the blanks.

| parabola | slope-intercept-form | line | ordered pairs | graph |
| :---: | :---: | :---: | :---: | :---: |


| mapping diagram | standard form | table |
| :---: | :---: | :---: |


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## Hints for solving these problems

## 1 . Match the image with its corresponding definition.

## Hint \#1

In a mapping diagram, the input is the domain and the output the range.

## Hint \#2

For a graph, we use a coordinate system.

## Hint \#3

An ordered pair in general is given by $(x, y)$.

## Answers and detailed answer explanations for these problems

## 1 Match the image with its corresponding definition.

Answer key: 1: mapping diagram // 2: ordered pairs // 3: table // 4: graph

To represent any relation between an input and an output we can use different imagines.
From left to the right we have:

## The mapping diagram

On the left side we have the domain, the set of all inputs, and on the right the range, where we find all possible outputs. We use arrows to show the corresponding relationships.

## Ordered pairs

Using the relations represented by the mapping diagram, we can also write ordered pairs: the first position is the input $x$ and the second the output $y$.

Table

| $x$ | $y$ <br> input |
| :---: | :---: |
| output |  |

Here you see the corresponding table: row by row you see the ordered pairs. Again you can recognize the input on the left and the output on the right side.

## Graphs

To represent the relation in a more visual way we use graphs: for this we draw each ordered pair $(x, y)$ into a coordinate system, where the $x$-axis stands for the input while the $y$-axis represents the output.

