$\qquad$ In Class Notes

Ordered pairs can be used to show $\qquad$ \& $\qquad$ .


A $\qquad$ pairs inputs with outputs. A relation can be represented by

## Key Ideas

## Relations and Mapping Diagrams

Ordered Pairs
$(0,1)$
$(1,2)$
$(2,4)$

Mapping Diagram


## Listing Ordered Pairs of Relations

Ex:) List the ordered pairs shown in each mapping diagram.
Notes:
A.
B. Input Output

A. Input Output

B. Input Output


A relation that pairs each input with exactly one output is a $\qquad$ .

## Determining Whether Relations Are Functions

Ex:) Determine whether each relation is a function.
Notes:
A.

B.



## Modeling Real Life

Ex:) The mapping diagram represents the prices of one-way subway tickets to different zones of a city.
A. Is the price of a subway ticket a function of the zone number?

B. Describe the relationship between the price and the zone number.


OYO:) The mapping diagram represents the cost of reserving a hotel room for different numbers of nights.
A. Is the cost a function of the number of nights reserved?

B. Describe the relationship between the cost and the number of nights reserved.

