More on Relations

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}
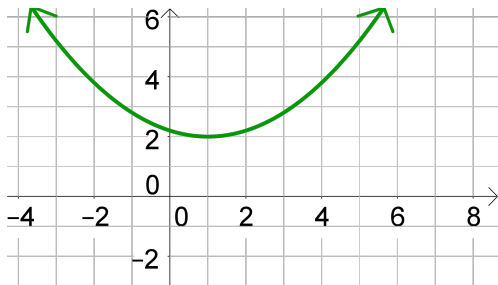
More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}
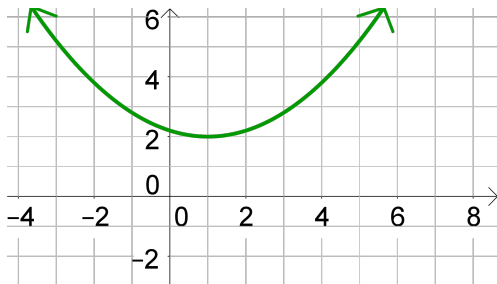
More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}

Domain $= (-\infty, \infty)$

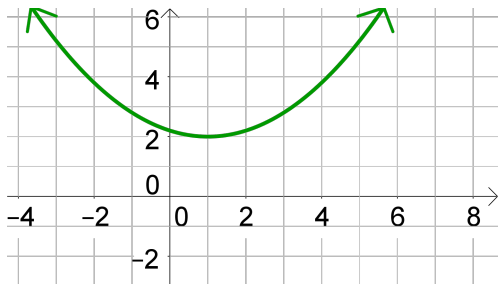# More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}

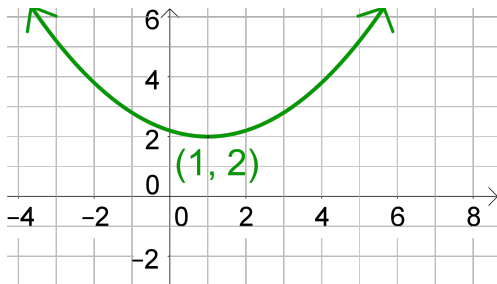**Domain** $= (-\infty, \infty) = \mathbf{R}$

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: **The *range* of a relation is the set of $y-$values**

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}

(1, 2)

Domain $= (-\infty, \infty) = \mathbf{R}$

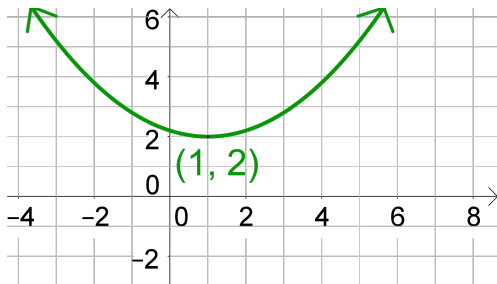**Range** $= [2, \infty)$

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* **is a relation so that no two pairs have the same** $x-$**value**. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}

(1, 2)

Domain $= (-\infty, \infty) = \mathbf{R}$

Range $= [2, \infty)$

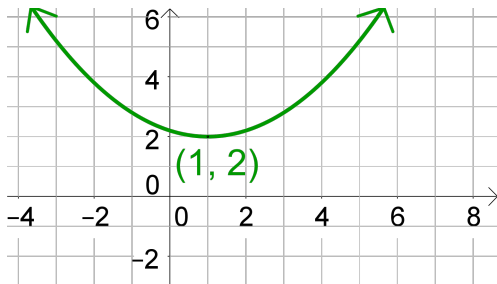This relation is a function

More on Relations

Definition: A *relation* is a set of ordered pairs (x, y)

Definition: The *domain* of a relation is the set of $x-$values

Definition: The *range* of a relation is the set of $y-$values

Definition: A *function* is a relation so that no two pairs have the same $x-$value. That is, no $x-$value shows up twice.

Example 4: {all points (x, y) on the graph}

(1, 2)

Domain $= (-\infty, \infty) = \mathbf{R}$

Range $= [2, \infty)$

This relation is a function