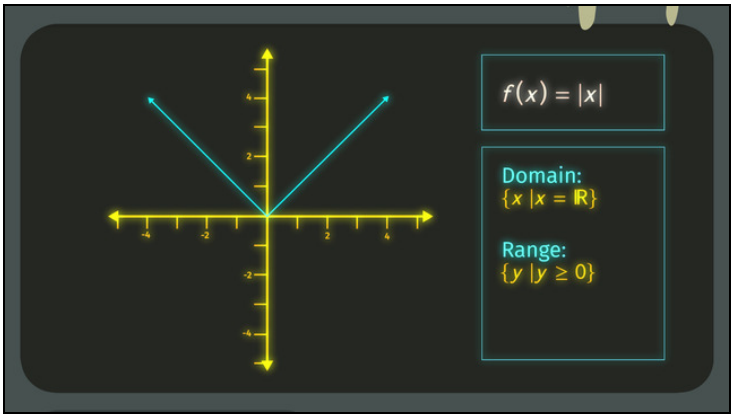
Printable Worksheets from sofatutor.com

Special Functions



1. **Describe how to draw the graph of a function.**
2. Decide which graph belongs to which function.
3. Write the definition of an asymptote.
4. Determine the corresponding function equation.
5. Explain the expressions' domain and range.
6. Examine the domain, range, and asymptotes of the functions.

\+ with lots of tips, answer keys, and detailed answer explanations for all of the problems.

Describe how to draw the graph of a function.

Choose the correct statements.

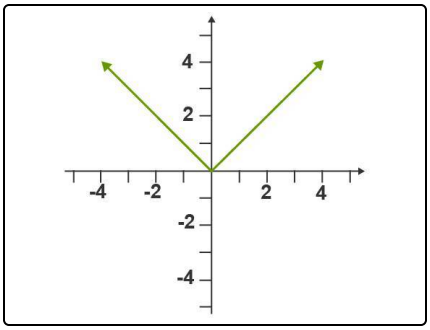
- [ ] All the x-values make up the domain. **A**
- [ ] All the y-values make up the domain. **B**
- [ ] The graph of a function can be drawn in a (x, y)-coordinate system. **C**
- [ ] To check whether a graph belongs to a function, use the vertical line test. **D**
- [ ] To check whether a graph belongs to a function, use the horizontal line test. **E**

Hints for solving these problems

1 of 6

Describe how to draw the graph of a function.

Hint #1



Here you see the graph belonging to $f(x) = |x|$.

The domain is $D = \{x \mid x \in \mathrm{R}\}$ and the range $R = \{y \mid y \geq 0\}$.

Hint #2

The horizontal axis is called the x-axis and the vertical one the y-axis.

Hint #3

Given a function, for each x there exists one $y = f(x)$.

Answers and detailed answer explanations for these problems

1 of 6

Describe how to draw the graph of a function.

Answer key: A, C, D

If you have any function you can draw its graph into an (x, y)-coordinate system. The x-axis is the horizontal axis while the y-axis is the vertical axis.

Each function has a domain, the set of all possible inputs, the x-values, and a range with all possible function values, the y-values.

If you'd like to check if a graph could belong to a function you can perform the vertical line test: each line parallel to the y-axis has at most one point in common with the graph.