

Analyze Graphs

- 1) Equation of Graph

$$y = |x-4| - 2$$

- 2) Calculator Notation

$$Y1 = \text{abs}(X-4) - 2$$

- 3) Classify / Type of Graph

Absolute Value

- 4) Function? yes/no

Yes

- 5) One-to-One Function? yes/no

No

- 6) State any Symmetry:

about line $x=4$

- 7) Domain:

$$(-\infty, \infty)$$

- 8) Range:

$$[-2, \infty)$$

- 9) x-intercept(s):

$$x=2, x=6$$

- 10) y-intercept(s):

$$y=2$$

- 11) Where is $f(x) < 0$?

State the values of x using interval notation.

$$(2, 6)$$

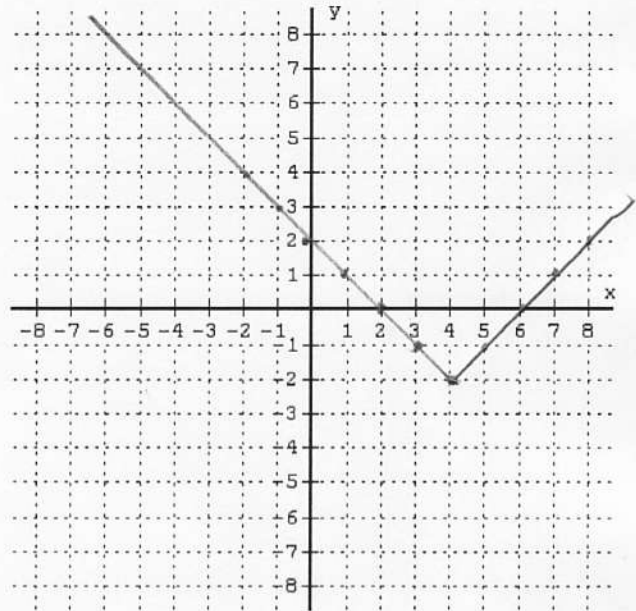
- 12) Where is $f(x) \geq 0$?

State the values of x using interval notation.

$$(-\infty, 2] \cup [6, \infty)$$

- 13) Where does $f(x) = 0$?

$$x=2, x=6$$



- 14) Where is $f(x)$ increasing?

State the values of x using interval notation.

$$(4, \infty)$$

- 15) Where is $f(x)$ decreasing?

State the values of x using interval notation.

$$(-\infty, 4)$$

- 16) Absolute Maximum value:

None, ∞

- 17) Absolute Minimum value:

-2

- 18) Equation(s) of any Asymptote(s).

N/A