

Warm-Up

1. What's significant about the vertex for all parent functions? *its at the origin*
2. identify the parent function: $f(x) = -(x + 3)^3 - 5$
cubic
3. Identify the transformation of the p.f. above
*reflects across x-axis, H.T left 3
V.T down 5*
4. if the function $f(x) = (x - 3)^2 + 5$ is transformed to $g(x) = (x + 5)^2 + 2$, what transformation took place?
H.T left 8 V.T down 3
5. Convert the domain/range: $D: [-5, \infty)$ $R: -10 < y \leq 20$
D: $-5 \leq x < \infty$ R. $(-10, 20]$

Review: Domain and Range Worksheet

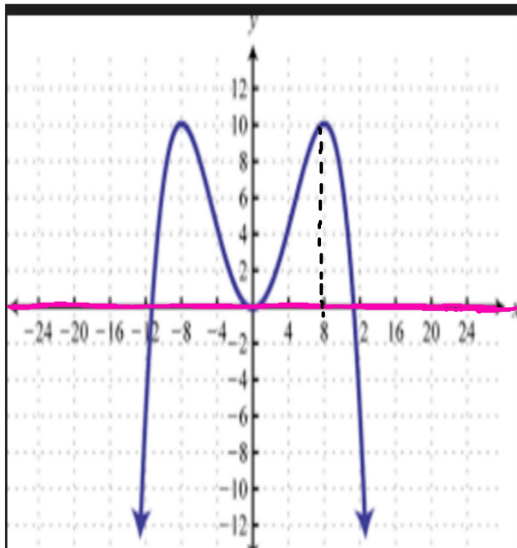
ACT Question of the Day

2. The monthly fees for single rooms at 5 colleges are \$370, \$310, \$380, \$340, and \$310, respectively. What is the mean of these monthly fees?
F. \$310
G. \$340
H. \$342
J. \$350
K. \$380

Unit 1: Functions
Increasing and Decreasing Intervals

○ , ()
● , []
→ , ()

Identify where the graph is constant, increasing, or decreasing



Increasing: $(-\infty, -8]$

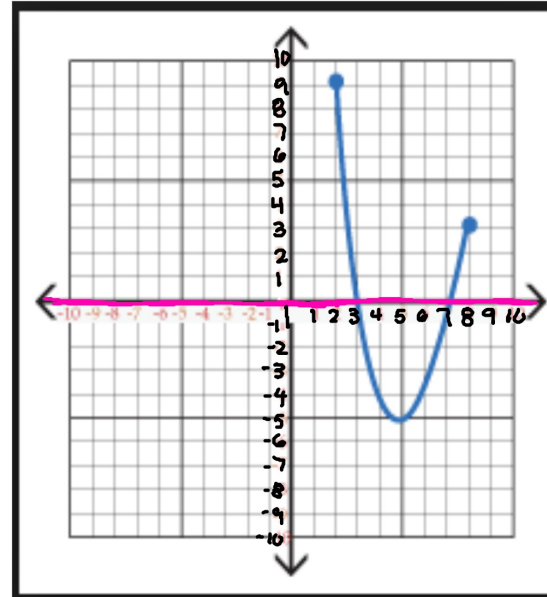
$[0, 8]$

Decreasing: $[-8, 0]$

$[8, \infty)$

Constant: _____

Identify where the graph is constant, increasing, or decreasing

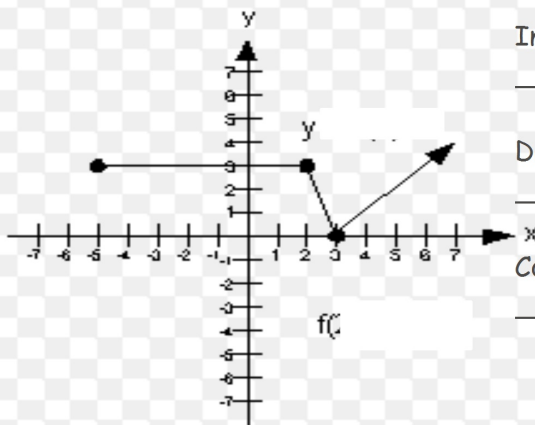


Increasing: $[5, 8]$

Decreasing: $[2, 5]$

Constant: _____

Identify where the graph is constant, increasing, or decreasing

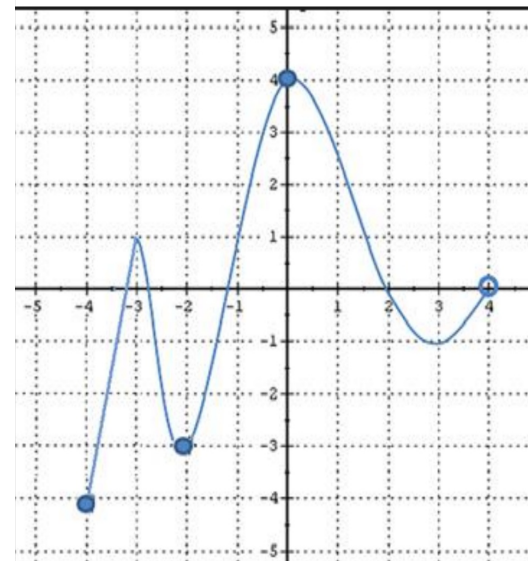


Increasing: $[3, \infty)$

Decreasing: $[2, 3]$

Constant: $[-5, 2]$

Identify where the graph is constant, increasing, or decreasing



Increasing: $[-4, -3]$

$[-2, 0], [3, 4]$

Decreasing: $[-3, -2]$

$[0, 3]$

Constant: _____

Classwork

Black History Month began as “Negro **History** Week,” which was created in 1926 by Carter G. Woodson, a noted **African American** historian, scholar, educator, and publisher. It became a month-long celebration in 1976. The month of February was chosen to coincide with the birthdays of Frederick Douglass and Abraham Lincoln.