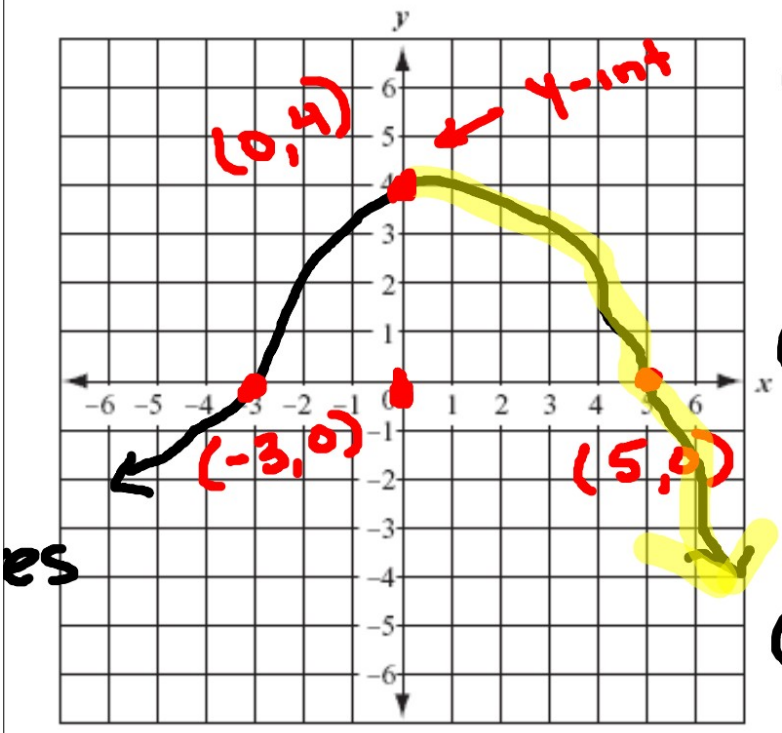
DRILL



es

① What is the y-intercept? (x=0)

y = 4

② What are the x-intercepts?

x = -3 x = 5

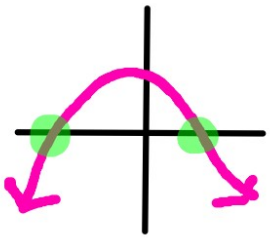
③ where is the graph decreasing?

(0, ∞)

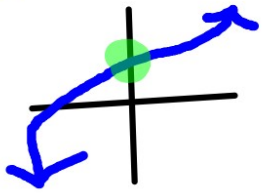
∞ infinity

- x & y intercepts ✓
- Intervals of Increase / Decrease
- Is the Graph a function ✓
- Domain & Range

x-intercepts : where the graph crosses the x-axis



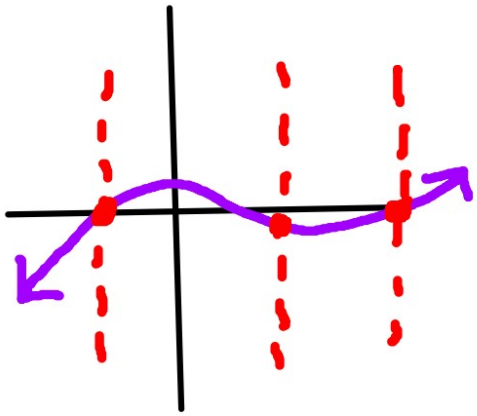
y-intercept : where the graph crosses the y-axis



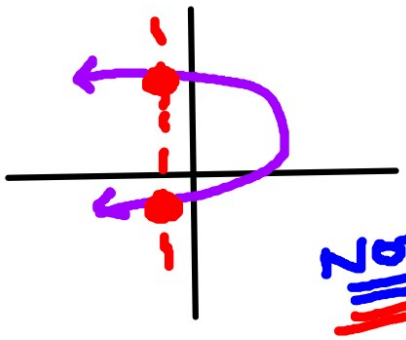
How to tell if a graph is a function

* Vertical Line test

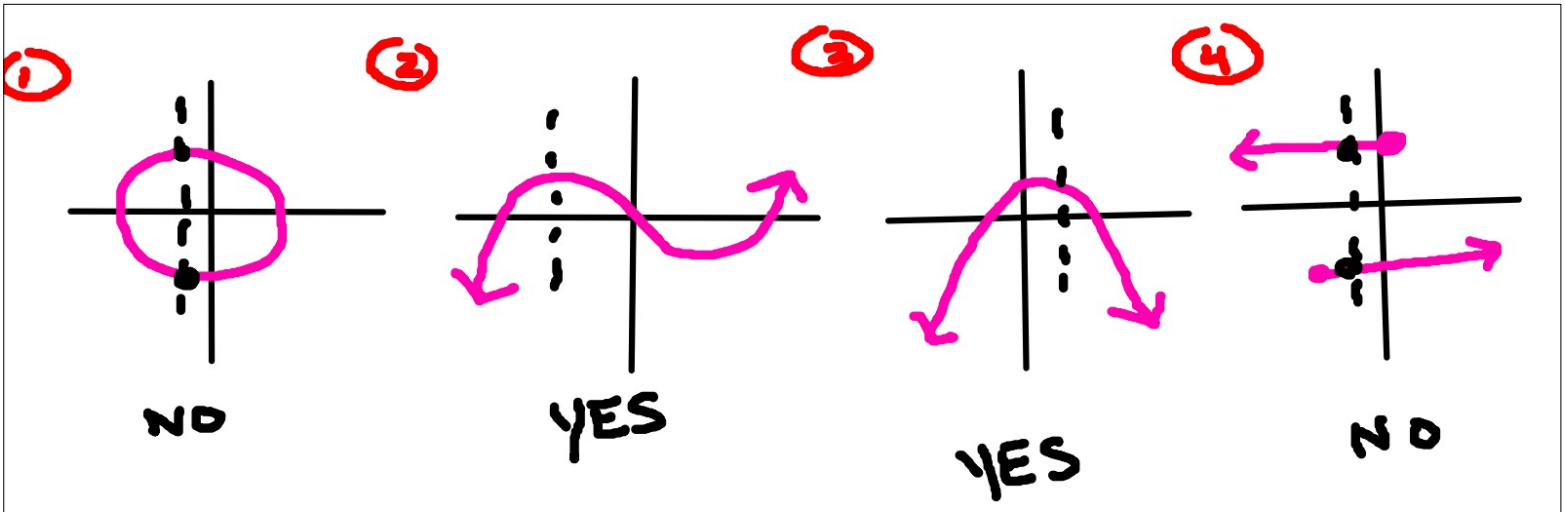
If the lines only pass through <u>one</u> point, then it <u>is</u> a function.



Function

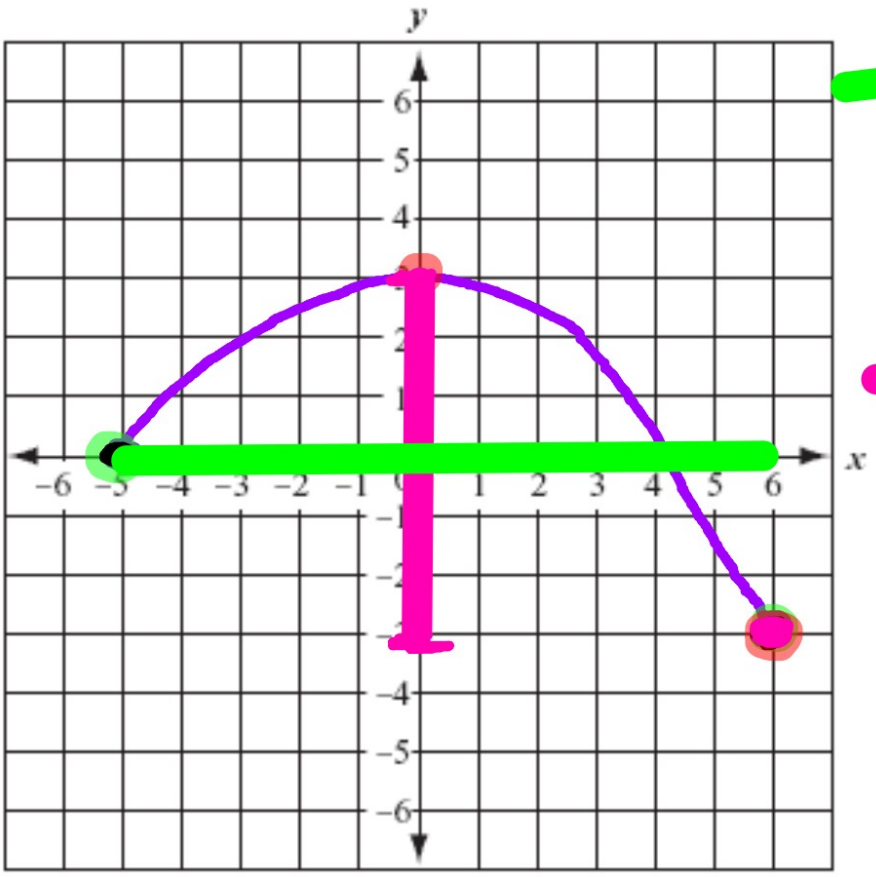


<u>Not</u> a function



* DOMAIN: All possible X-values

* RANGE: All possible y-values



Domain (x)

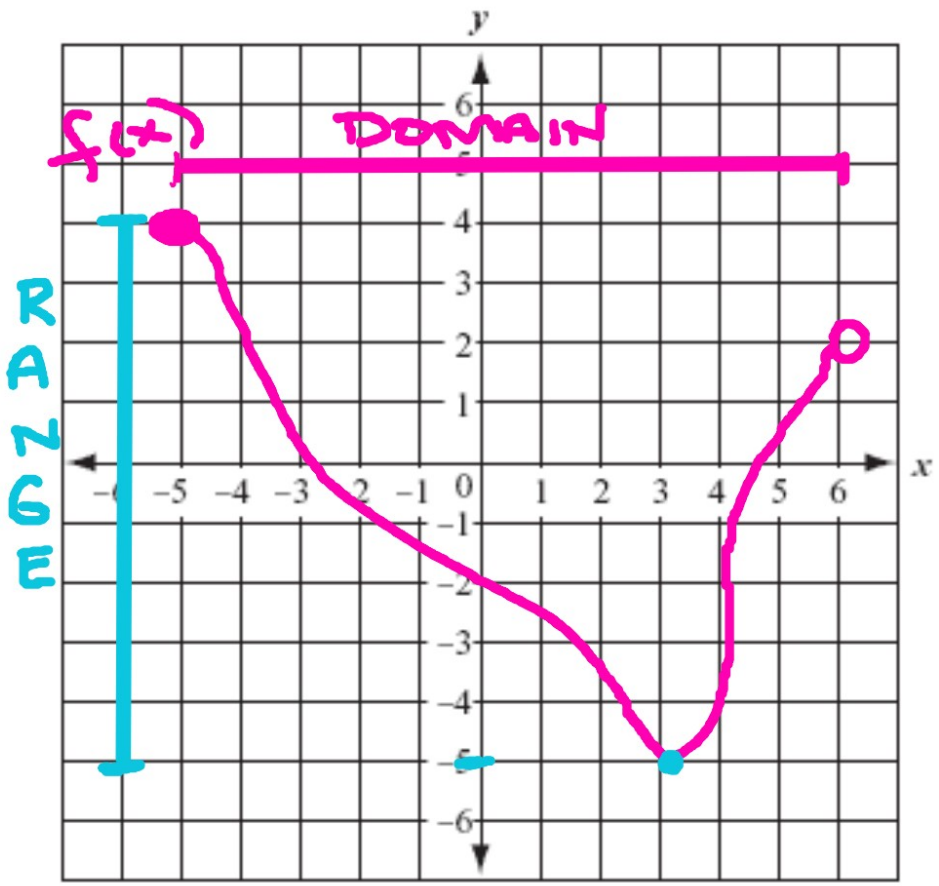
[-5, 6]

Range (y)

[-3, 3]

(,) NOT EQUAL

[,] EQUAL

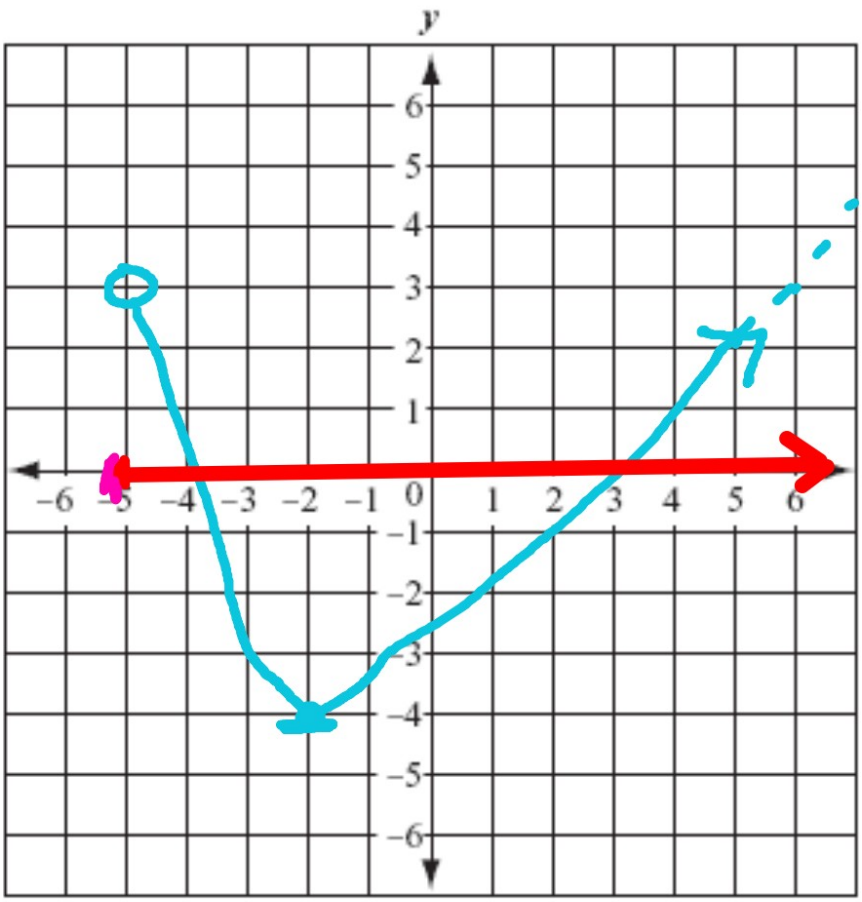


Domain:

$[-5, 6)$

Range:

$[-5, 4]$



x

Domain:

$(-5, \infty)$

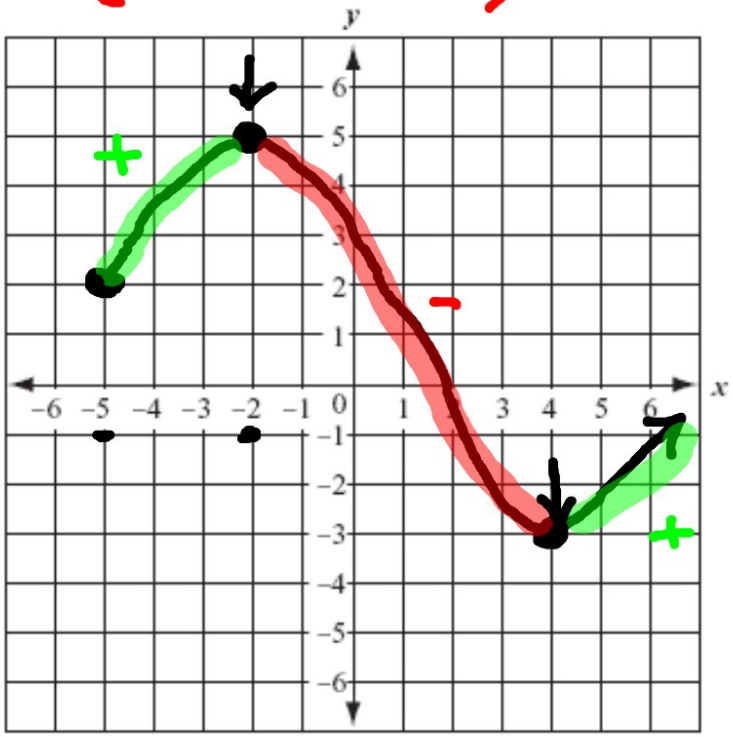
y

Range:

$[-4, \infty)$

* Infinity or Negative Infinity Always use (,)

* (x-values)



Intervals of Increase (up)

(-5, -2)

(4, ∞)

Intervals of Decrease (Down)

(-2, 4)

Intervals of Increase & Decrease

ALWAYS USE (,)