

Quiz 1 Notes

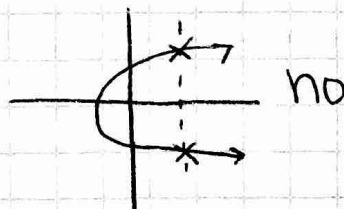
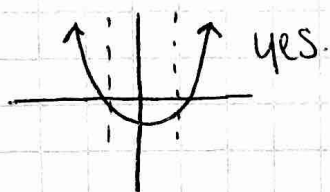
A2

4.1 interpreting graphs

- look at the "graphing a story" notes
- $y = mx + b$ ← starting value
↑
continual increase/decrease amount

4.2 Function

- only 1 y-value for every x-value
- vertical line test



• Algebra

$$f(x) = 2x^2 - 5x + 6$$

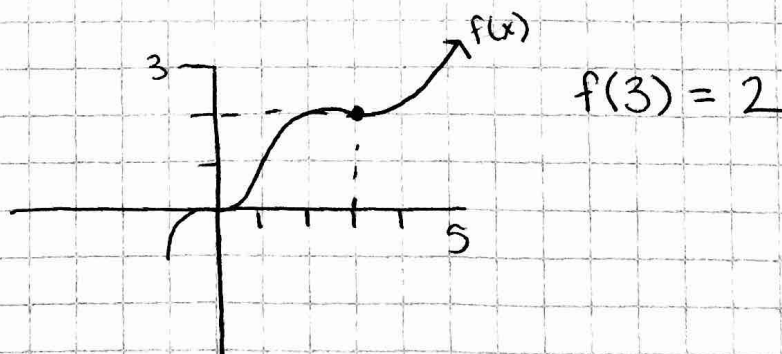
$f(5)$ is saying replace x with 5

$$\text{so } \dots f(5) = 2(5)^2 - 5(5) + 6 = 31$$

$f(x) = 10$ is saying replace $f(x)$ with 10

$$\text{so } \dots 10 = 2x^2 - 5x + 6 \quad \text{\& solve for } x.$$

• Graphs



domain & range

open circle (o) is () parentheses
closed circle (•) is [] hard brackets

* ∞ & $-\infty$ always use () *
* use U to connect multiple *

domain: all possible x-values, always look left to right

range: all possible y-values, always look bottom to top

4.0 Solving for x

Common misconceptions

- absolute value has 2 solutions, you need to take the answer & solve for \pm

[ex] $|x-2| = 7$

$x-2 = 7$ $x-2 = -7$

- when you square root both sides do not forget \pm

[ex] $\sqrt{x^2} = \sqrt{25}$
 $x = \pm 5$