Your Name September 2nd 2025

Math 115E Activity 2

Chapter 2 Section 1
The Coordinate System

Introduction to Intercepts of a graph and how to identify them

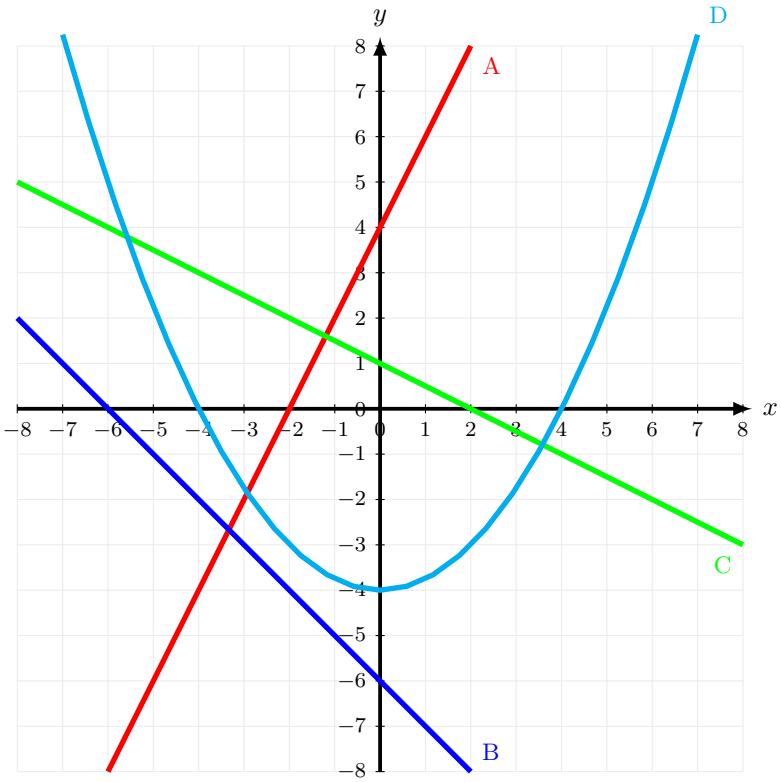
Definition. *Given a graph in the coordinate plane, coordinate points of the form (x,0) on the curve are x-intercepts, and coordinate points of the form (0,y) on the curve are y-intercepts.*

1. For graph (A) what are the x-intercepts and y-intercepts?

2. For graph (B) what are the x-intercepts and y-intercepts?

3. For graph (C) what are the x-intercepts and y-intercepts?

4. For graph (D) what are the x-intercepts and y-intercepts?



Math 115E Activity 2

Chapter 2 Section 2
What are Functions?

How to interpret intercepts from a function table

1. A balloon is rising from a ravine, it starts 13 ft below ground (fill in the missing values)

$t\ (sec)$	0	2	4		8		12	14		18	20
$f(t)\ (feet)$	-13		-9	-7	-5	-3		1	3		7

a. What is the value of $f(12)$ and $f(2)$. What does it represent?

b. What is the hight of the balloon at $time = 4$

c. What time does the balloon reach ground level?

d. When does the balloon reach 10 feet below ground?

2. A ball is falling from the sky, then bounces off the ground then falls back down and stops

$t\ (sec)$	0	1	2	3	4	5	6	7	8	9	10
$g(t)\ (feet)$	12	9	6	3	0	3	6	9	6	3	0

a. What is the value of $f(4)$ and $f(9)$ what does it represent?

b. What is the height of the balloon at $time = 6$

c. How many times does the ball touch the ground?

d. What are the x-intercepts and y-intercepts?