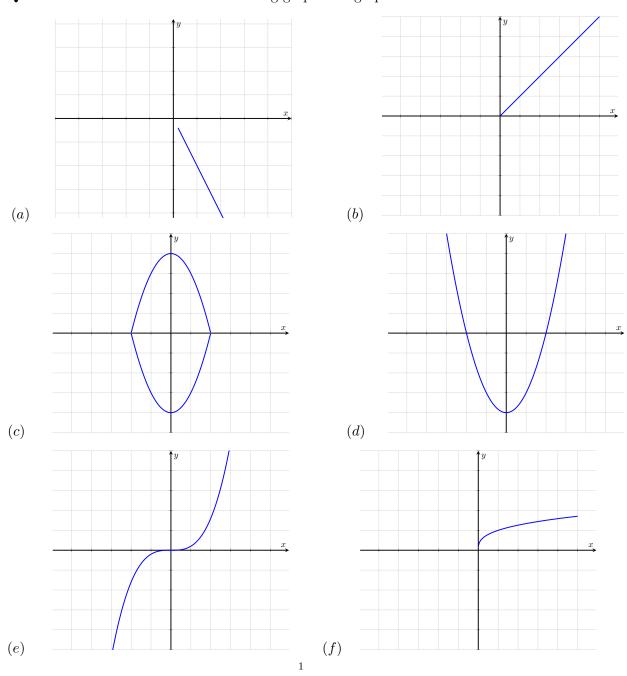
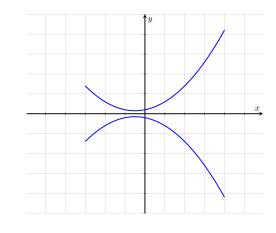
## ALGEBRA 2 HONORS PROBLEM SET 5

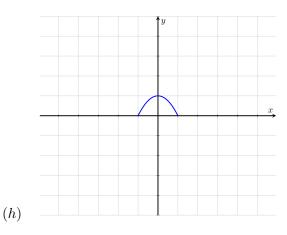
DUE DATE: SEPTEMBER 5

Question 1. Circle which of the following graphs are graphs of a function:

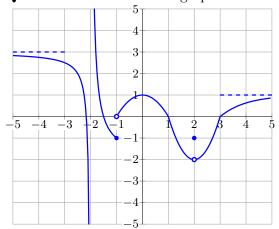


(g)





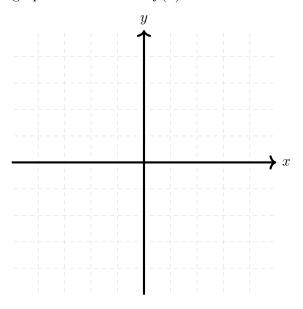
**Question 2.** Consider the graph of the function f(x) below:



- (a) Find the value of f(-3)
- (b) Find the value of f(-1)
- (c) Find the value of f(1)
- (d) Find the value of f(2)

- (e) Find the value of  $\lim_{x \to -1^-} f(x)$ (f) Find the value of  $\lim_{x \to -1^+} f(x)$ (g) Find the value of  $\lim_{x \to 2^+} f(x)$ (h) Find the value of  $\lim_{x \to 2^+} f(x)$

**Question 3.** Draw the graph of the function f(x) = 3.



Question 4. Draw the graph of the function

$$f(x) = \begin{cases} 1 & \text{if } x = 2\\ 2 & \text{if } x > 2\\ 3 & \text{if } x < 0\\ 0 & \text{else} \end{cases}$$

