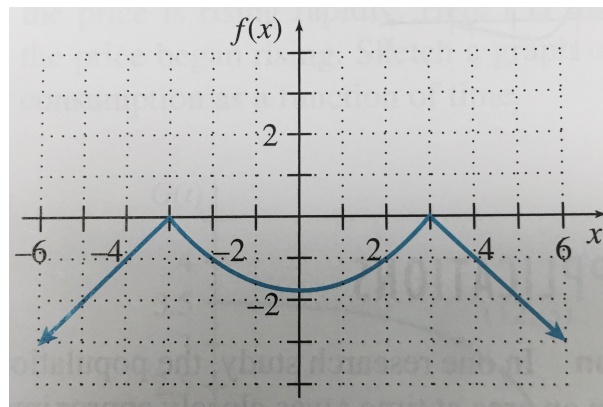


Name: _____

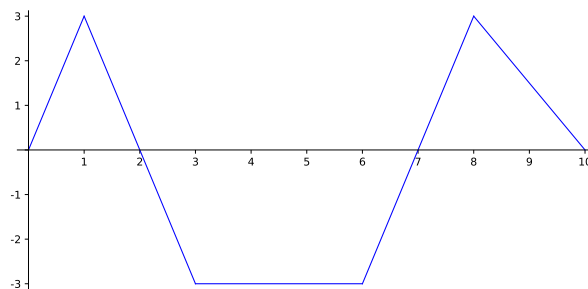
Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

Due next class. Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

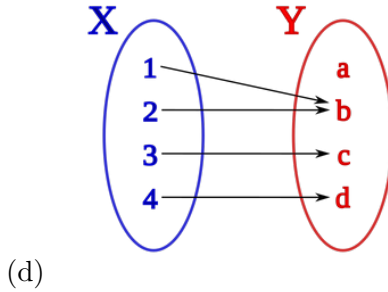
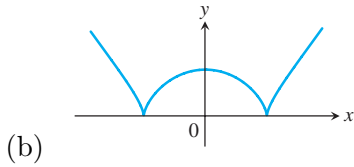
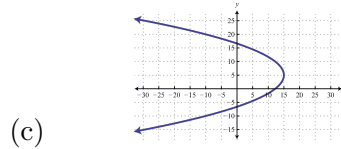
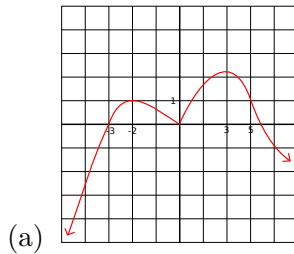
1. Graph $f(x) = 4 - x$ by hand by plotting points to determine the shape of the graph
2. Graph $f(x) = |x - 1|$ by hand by plotting points to determine the shape of the graph
3. Let $f(x) = \frac{3x-5}{x+5}$. What is the domain of f in interval notation? Find $f(-1)$ and $f(x+1)$.
4. Let $f(x) = \sqrt{-2x}$. What is the domain of f in interval notation? Find $f(-2)$ and $f(-x)$
5. Find the domain and range of the following graph:



6. Find the domain and range of the following graph:



7. Which of the following are functions?



8. Determine if each of the following relations are functions or not:

(a) $S = \{(-3, 7), (-1, 7), (3, 9), (6, 7), (10, 0)\}$

(b) $S = \{(1, 2), (-1, 3), (2, 5), (-1, 7)\}$

(c)

x	1	2	3
y	1	1	1

(d)

x	4	5	3	4
y	1	2	3	4

9. Write the equation of a function that could be used to convert from x inches to y feet, then find $f(168)$. Interpret what this means in terms of this problem.

10. Let $f(x) = \frac{x^2-3}{4}$. How would you express this function verbally (i.e. in words).