

Name: _____ Period: _____

PC-1 Review

1) Algebraically find the domain of the following functions.

a) $h(x) = \frac{3x}{x^2-16}$

b) $f(x) = \frac{4}{x^2-5x}$

c) $g(x) = \sqrt{9x+7}$

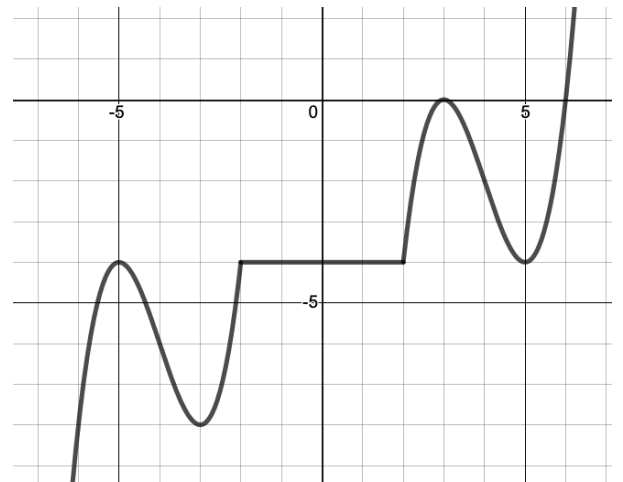
2) The graph of $g(x)$ is shown below. Approximate where needed.

a) Evaluate $g(0)$

b) Evaluate $g(3)$

c) Solve $g(x) = -8$. Write as a set.

d) Based on the graph, determine if $g(x)$ is even, odd, or neither. Explain your answer.



Determine if the function is even, odd, or neither.

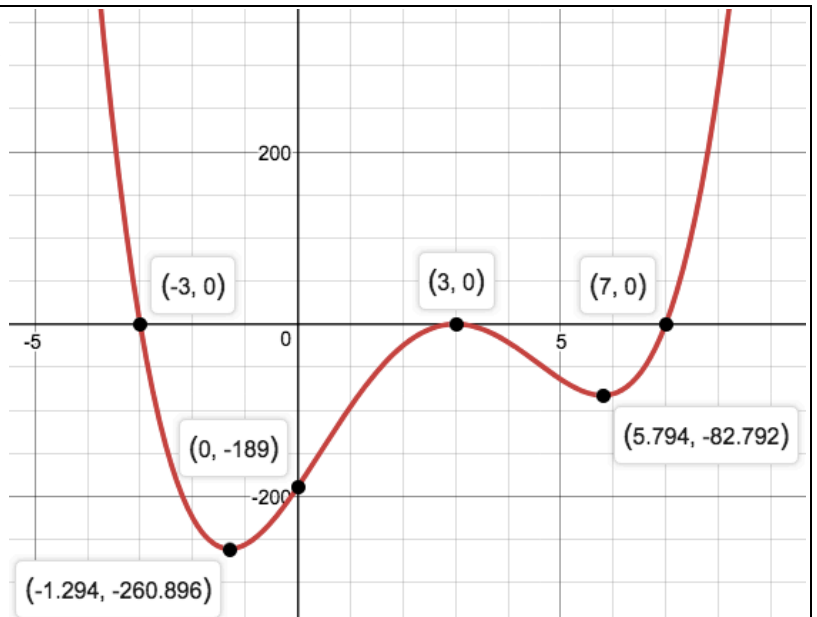
3) $G(x) = \frac{3x}{1+x^2}$

Determine if the function is even, odd, or neither.

4) $f(x) = x^4 - 4x^8$

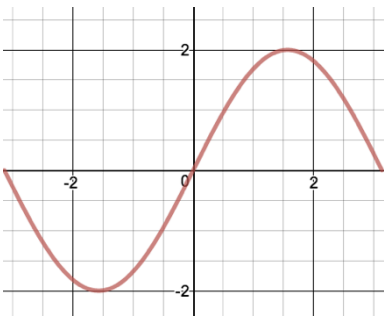
5) Use the graph to the right to answer the following:

- At what value(s) of x , if any does the graph of f have a local maximum?
- List the local maximum values.
- At what value(s) of x , if any does the graph of f have a local minimum?
- List the local minimum values.
- Identify intervals for which the graph is increasing/decreasing.



- Identify intervals for which the graph is concave up/down.

6) Determine if the function is even, odd, or neither. Explain your answer.



7) Let $f(x) = 3x^3 + 2x^2$

Evaluate $f(-2)$

8) Let $f(x) = 3x^3 + 2x^2$

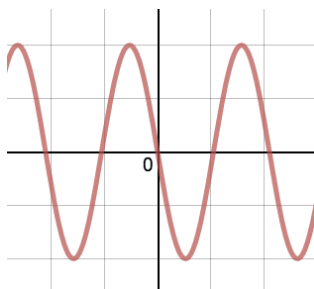
Solve $f(x) = 0$

Determine if the following relations are well-defined functions. Explain why or why not.

9.

$\{(2, 5), (4, 7), (3, 4), (3, 4)\}$

10.



11.

