$g(x)$ is a continuous odd function with domain $(-5,5)$

The derivative of g is positive on $[0,2]$ and nonpositive on $[2,5)$

$g'(2)=0$ and $g'(4)=0$

$g''(x)$ is positive on $(0,1),(3,4)$

Identify the x coordinates of all relative maxima and minima of g

Identify the x coordinates of all inflection points of g

Identify all intervals where g is increasing

Identify all intervals where g is concave down

Sketch a possible graph of g

Given the facts that $g(x) = f'(x)$ and that $h(x) = g'(x)$

the graph of g, and the function values listed, you are to create graphs of f and h on the axes provided.

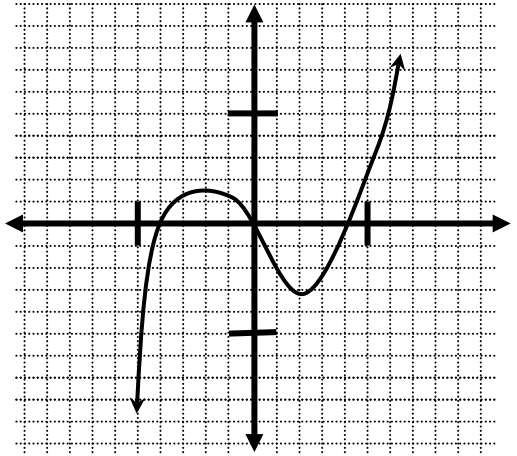
$f(3) = 1$

$f(2) = 2$

$f(0) = 3$

$f(-2) = 2$

$f(-3) = 1$



And now, a number of questions:

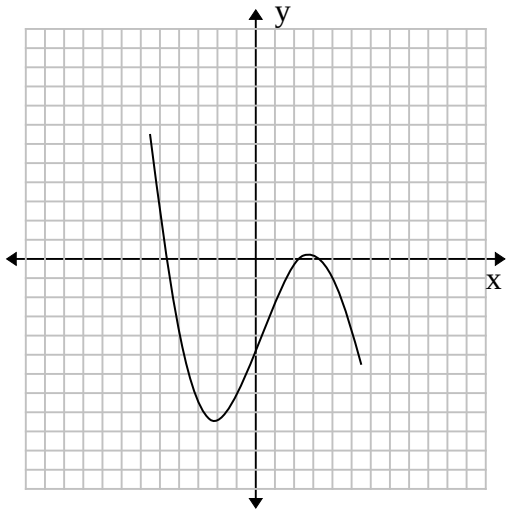
1) Where does f have a point of inflection?

2) What happens to g at your answer to #1?

3) What happens to h at your answer to number 1?

4) Find an interval where g is increasing. What is happening to f on this interval? What is happening to h on this interval?

5) Find an interval where h has negative values. What is happening to g on this interval? What is happening to f on this interval?



Given $f'(x)$ sketch the derivative of each of the following

$a) f(x)+2$

$b) f(x+2)$

$c) 2f(x)$

$d) f(2x)$

$e) -f(-x)$

f is an odd periodic function.

It had period 10.

It is continuous on the real numbers.

The only relative max f has on $(-5,5)$ is at x=4

$$f(-6)=2$$

Make all possible conclusions that you can about f.

f is an odd periodic function.

It had period 10.

It is continuous on the real numbers.

The only relative max f has on $(-5,5)$ is at x=3

$$f(-6)=2$$

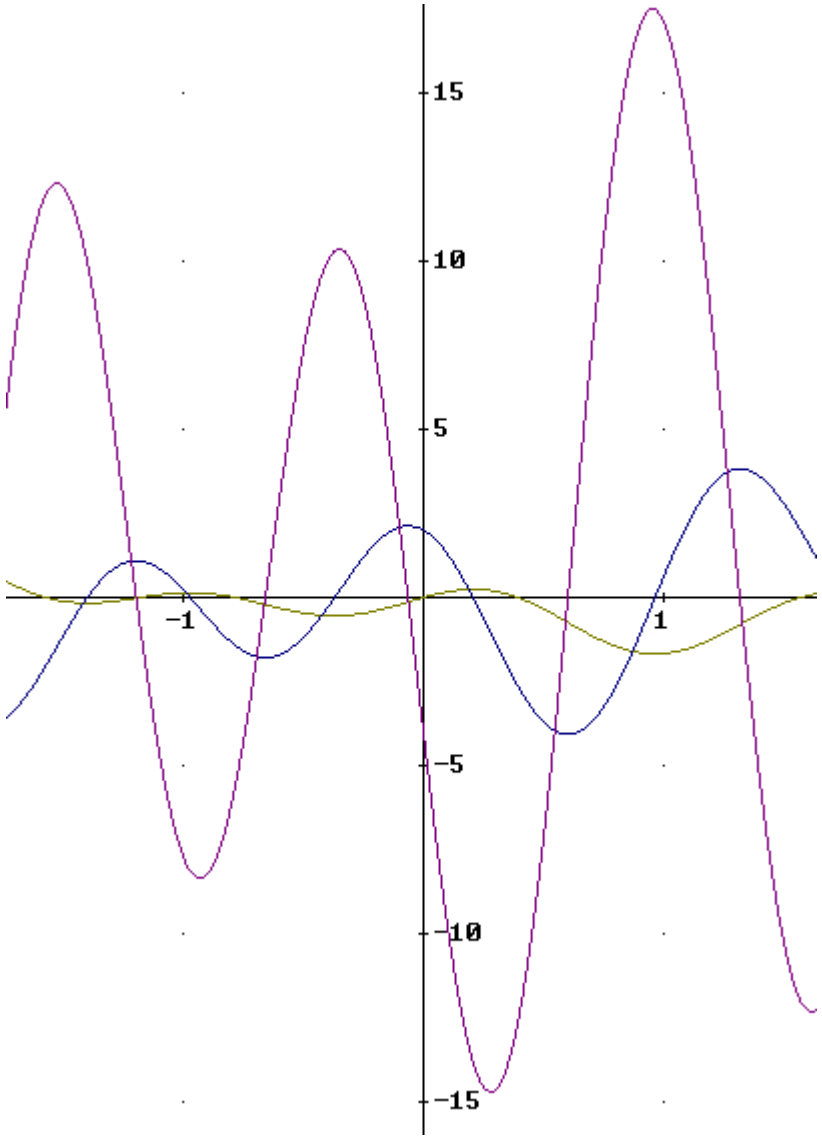
Make all possible conclusions that you can about f.

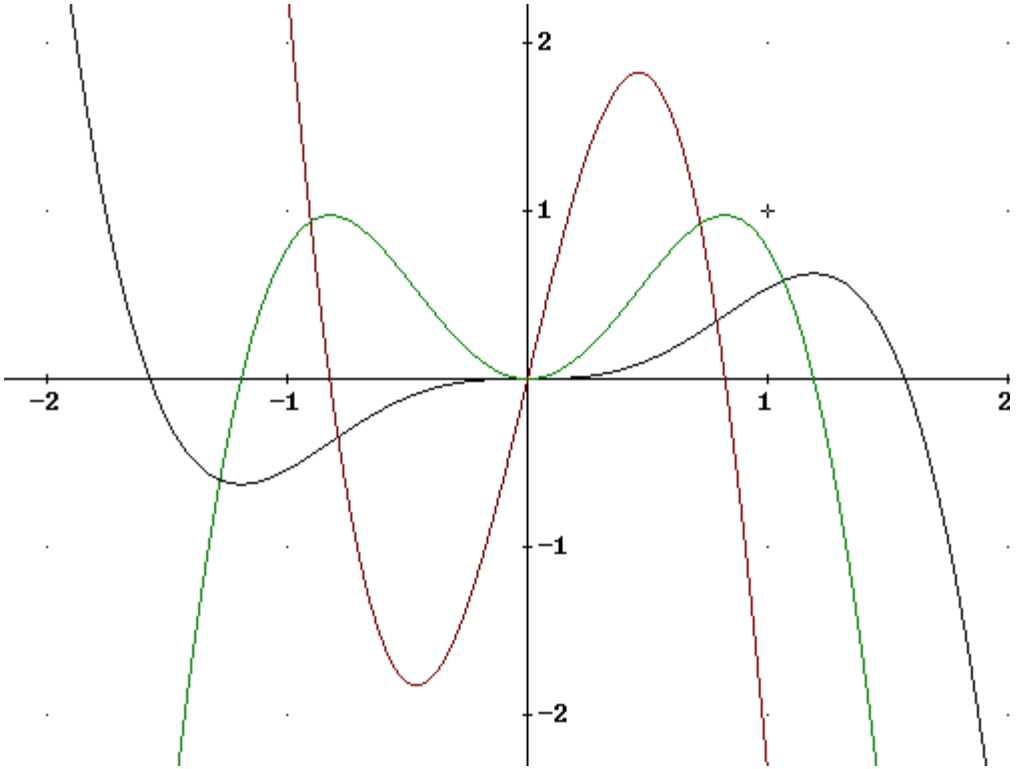
$f(5) = 12, -2 < f'(x) < 3$ for $x \in [0,10]$

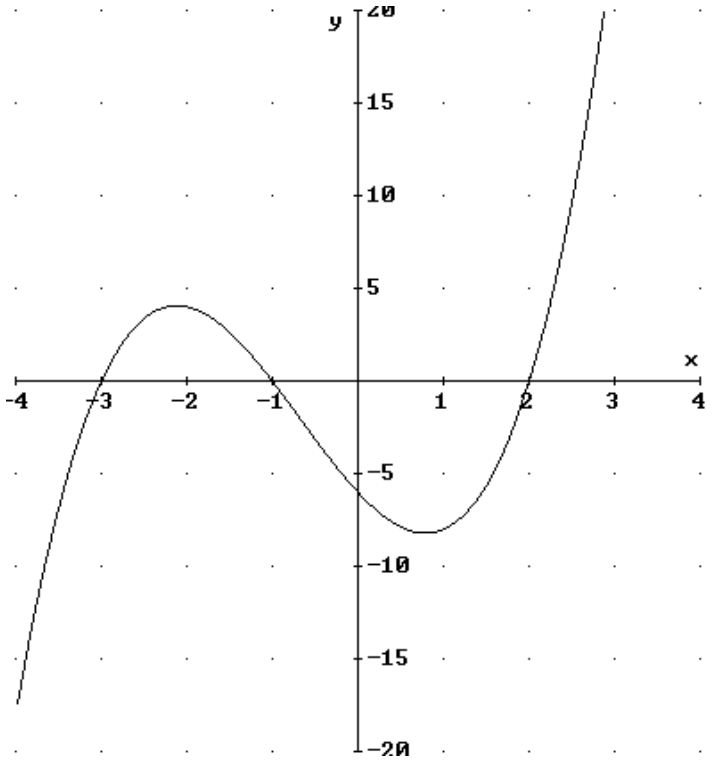
If possible, determine bounds, upper and lower, for each of the following numbers. Justify your answer.

$f(8)$

$f(3)$


15
10
5
-5
-10
-15
-1
1


2
1
−1
−2
−2
−1
1
2

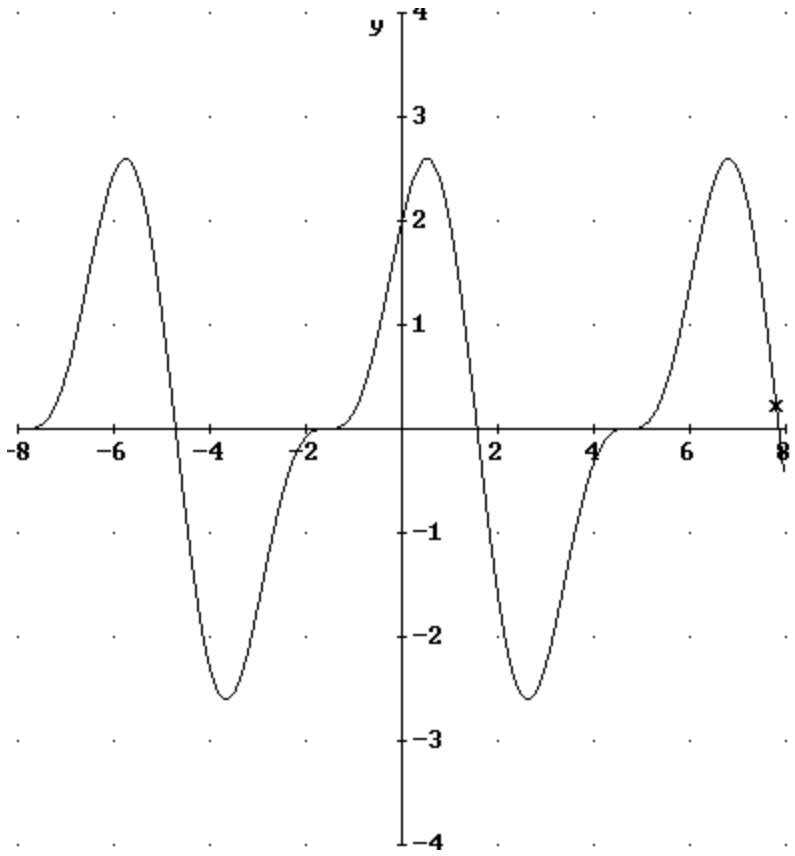


The graph of the *derivative* of a function f is shown. On what intervals is f increasing?On what intervals is f decreasing? What value of x will produce relative minimum values of f?

What values of x will produce relative maximum values of f?

What values of x will produce inflection points of f?

If f(0)=3, sketch f



The graph of the *derivative* of a function f is shown.

On what intervals is f increasing?

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What values of x will produce inflection points of f?

If f(0)=3, sketch f