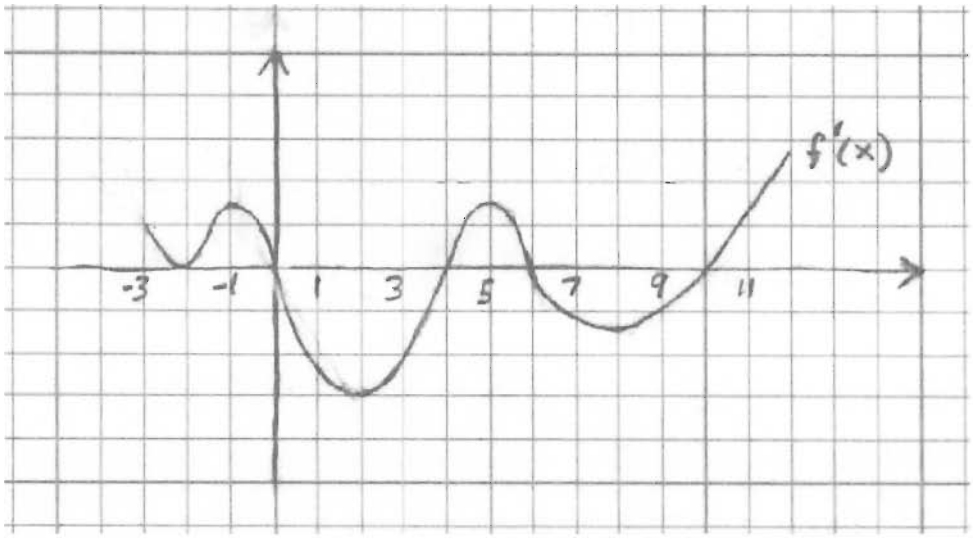
Quiz 11 Name: Answer Key



The graph of the first derivative f' of function f is shown above.

a) On what intervals is f decreasing?

when $f' < 0$

$(0, 4)$, $(6, 10)$

b) At what values of x does f have a local min or max? Identify if it is a min or max?

min or max at $f' = 0$ and f' changes sign at that point

$x = -2$ neither; f' is positive on both sides of $x = -2$.

$x = 0$	local max
$x = 4$	local min
$x = 6$	local max
$x = 10$	local min

c) On what intervals is f concave up?

$f'' > 0$ or f' is increasing

$(-2, -1)$, $(2, 5)$, $(8, 12)$

d) What are x-coordinates of the inflection points of f?

Concavity changes direction

$x = -2, -1, 2, 5, 8$