

Retake 5B: Algebra of functions

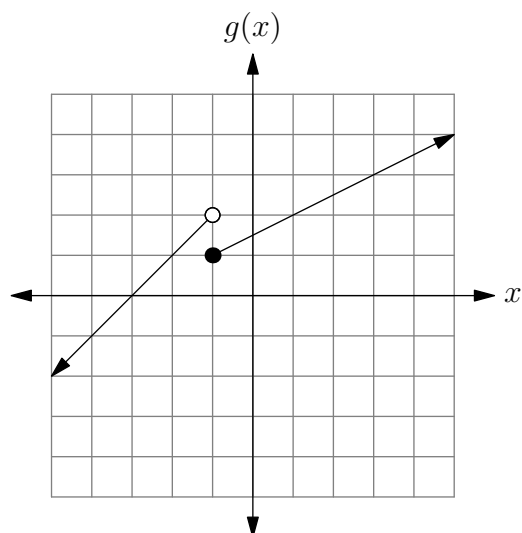
MATH 1110, FALL 2017

NAME:

1. (6 points) Define the function $f(x) = 3x - 2x^2$. Simplify the following difference quotient.

$$\frac{f(x+h) - f(x)}{h}$$

2. (8 points) Write the formula for the piecewise function $g(x)$ shown in the graph.



3. (6 points) The following graph shows a function $f(x)$. Estimate the rate of change for this function over the interval $x = -2$ to $x = 1$.

