7. [10 points] On the axes below sketch a well-labeled graph of a continuous function, g, which satisfies all of the following properties.

a. $g'(x) = 2$ for $1 < x < 2$

b. $g'(x) = -2$ for $2 < x < 3$

c. $g(0) = -1$

d. $g(1) = 0$

e. g is decreasing for $x > 3$

f. $g''(x) < 0$ for $x > 3$

g. g is concave down for $x < 1$