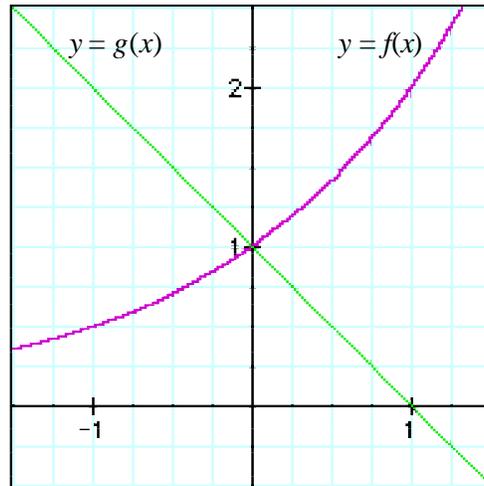


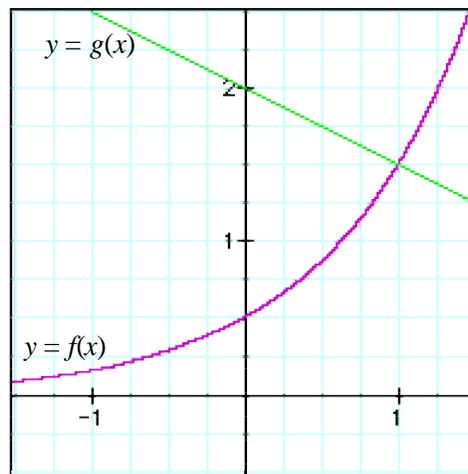
Problems for Gateway #3: Solving Equations Using Graphs

1. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

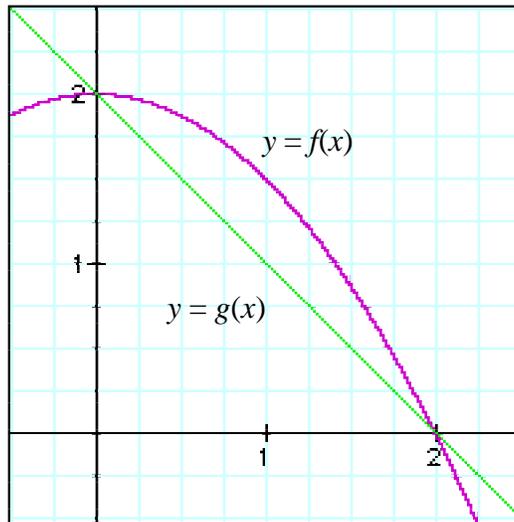
- (a) $x = -1$ and $x = 1$ only (b) $x = -1$ and $x = 3$ only
 (c) $x = 0$ only (d) $x = -1$ only
 (e) $x = -2$ only
2. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

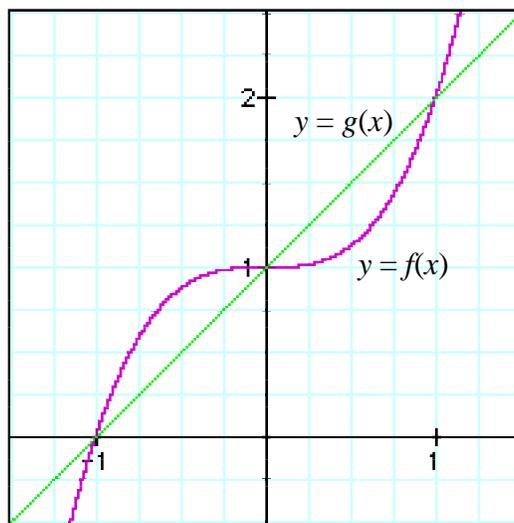
- (a) $x = 1$ only (b) $x = -2$ only
 (c) $x = -1$ and $x = 3$ only (d) $x = -1$ and $x = 1$ only
 (e) $x = 0$ only

3. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

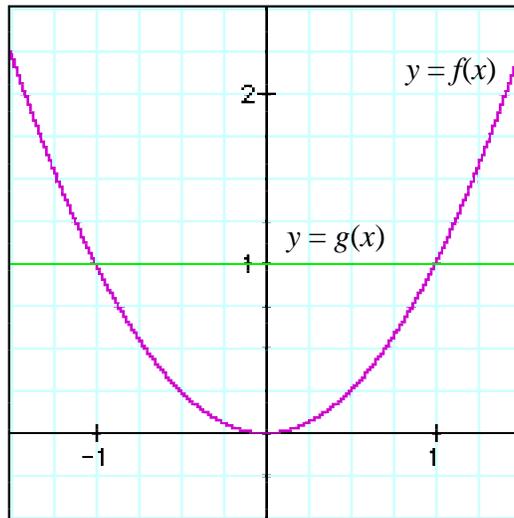
- (a) $x = 0$ only
 (b) $x = -1$ and $x = 3$ only
 (c) $x = -2$ only
 (d) $x = 0$ and $x = 2$ only
 (e) $x = -1$ and $x = 1$ only
4. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

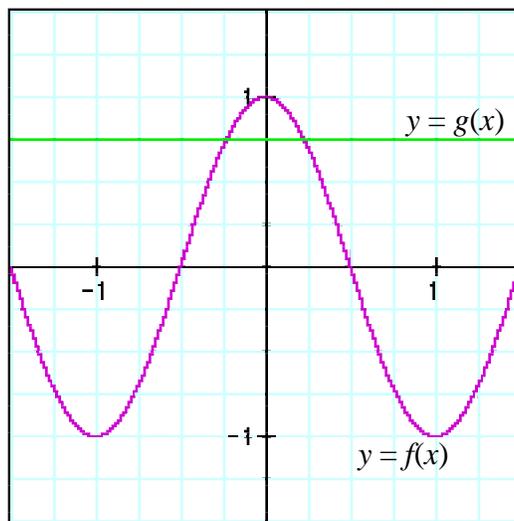
- (a) $x = -2$ only
 (b) $x = -1, x = 0$ and $x = 1$ only
 (c) $x = -1$ and $x = 3$ only
 (d) $x = -1$ and $x = 1$ only
 (e) $x = 0$ only

5. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

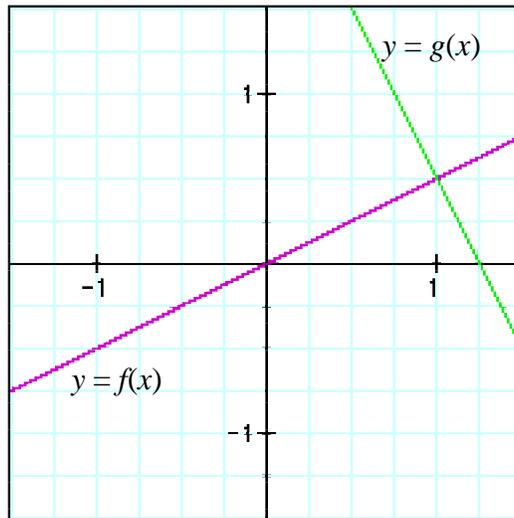
- (a) $x = -1$ and $x = 1$ only (b) $x = -1$ only
 (c) $x = -3$ only (d) $x = -1$ and $x = 3$ only
 (e) $x = -2$ only
6. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

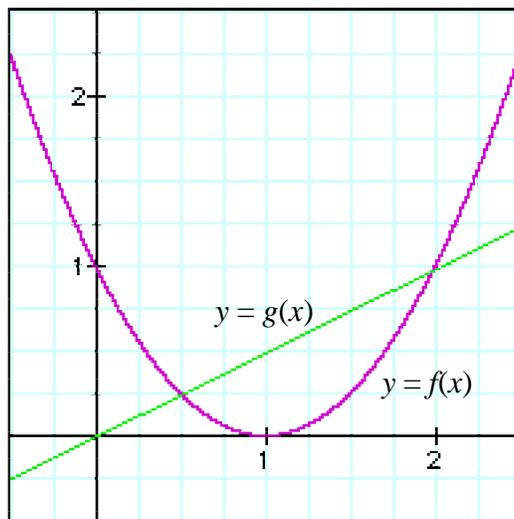
- (a) $x = -2$ only (b) $x = 0$ only
 (c) $x = -1$ and $x = 3$ only (d) $x = -1$ and $x = 1$ only
 (e) $x = -0.25$ and $x = 0.25$ only

7. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

- (a) $x = -1$ and $x = 1$ only (b) $x = -2$ only
 (c) $x = -1$ and $x = 3$ only (d) $x = 0$ only
 (e) $x = 1$ only
8. The diagram below shows the graphs of $y = f(x)$ and $y = g(x)$.



The value(s) of x that solve the equation $f(x) = g(x)$ are:

- (a) $x = -1$ and $x = 3$ only (b) $x = 0$ only
 (c) $x = 0$ and $x = 2$ only (d) $x = -1$ and $x = 1$ only
 (e) $x = -2$ only

