

Name: _____

Date: _____

To solve $f(x) = g(x)$: graph both sides, find where they CROSS. The x-values are the solutions. Last two are challenge problems!

1. $f(x) = x + 3$, $g(x) = 7$. Solve $f(x) = g(x)$.

show your work

2. f and g cross at (2, 5) and (6, 1).
Solve $f(x) = g(x)$.

show your work

3. $f(x) = 2x + 1$, $g(x) = x + 4$. Solve graphically or by algebra.

show your work

4. Solve $x^2 = 9$ by graphing $y = x^2$ and $y = 9$.

show your work

5. $f(x) = 3x - 2$, $g(x) = -x + 6$.

show your work

6. Why does the INTERSECTION solve $f(x) = g(x)$?

show your work

7. $f(x) = x^2 - 4$ and $g(x) = 0$: what are the solutions called?

show your work

8. $f(x) = |x|$, $g(x) = 4$. Solve.

show your work

9. $f(x) = x^2$ and $g(x) = 2x + 3$. Solve $f = g$. ★ CHALLENGE

show your work

10. $f(x) = |4x + 2|$, $g(x) = 3x + 5$. Show $x = 3$ is a solution; is $x = -1$ also one? (Trainer echo!) ★ CHALLENGE

show your work