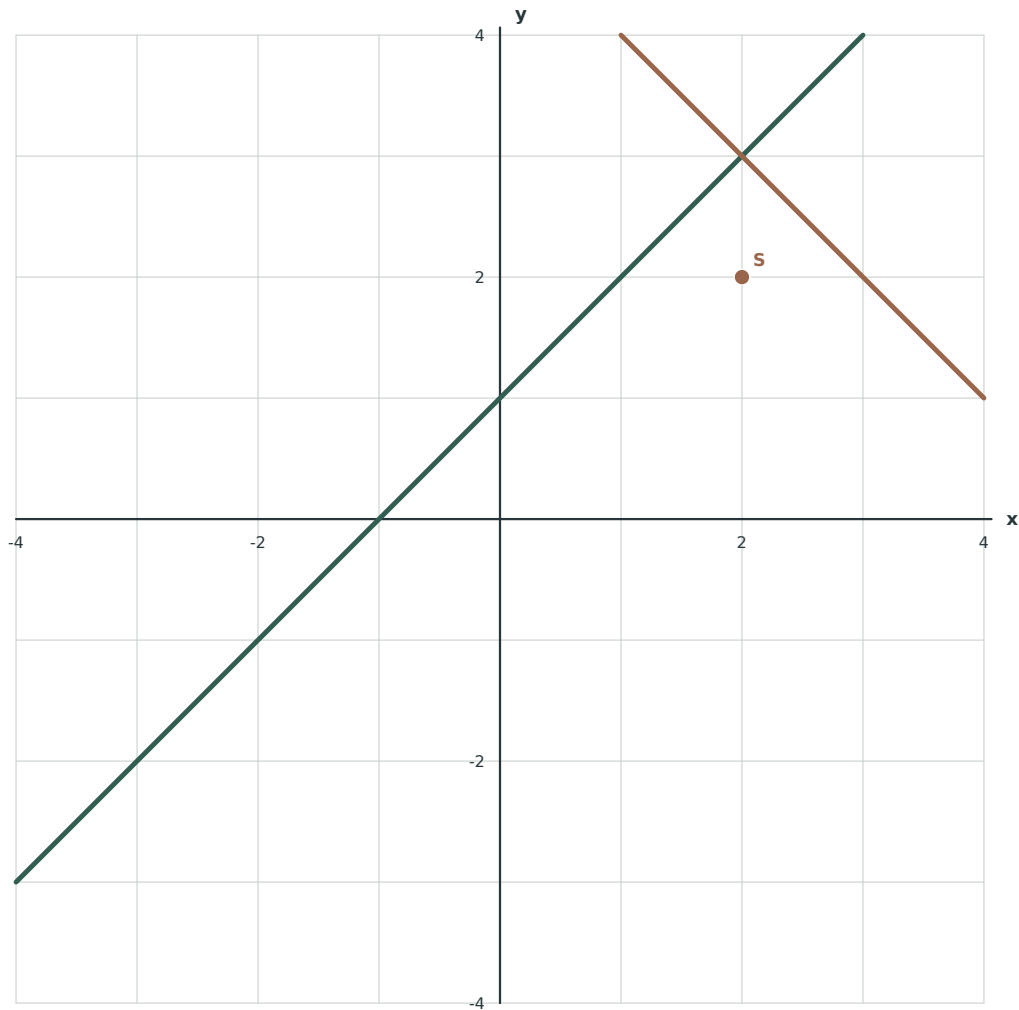


One intersection

Graph both equations on the same coordinate plane. A shared point is a solution; parallel lines have none and coincident lines share every point.

Line 1: $y=1x+(1)$; line 2: $y=-1x+(5)$.

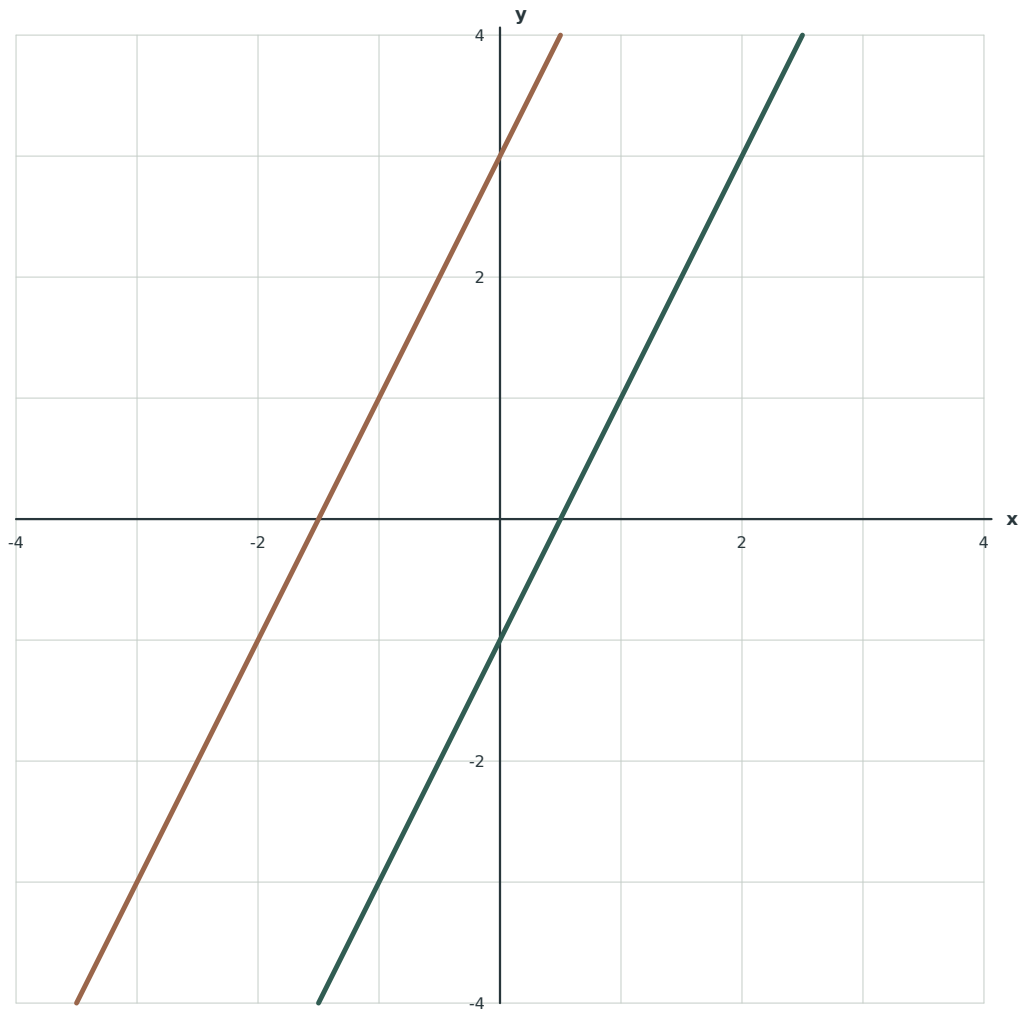


1. How many solutions? one intersection.
2. If one, state the intersection. Intersection ('2', '2').
3. Why does a shared point solve both equations? A shared point satisfies both equations.

Parallel lines

Graph both equations on the same coordinate plane. A shared point is a solution; parallel lines have none and coincident lines share every point.

Line 1: $y=2x+(-1)$; line 2: $y=2x+(3)$.

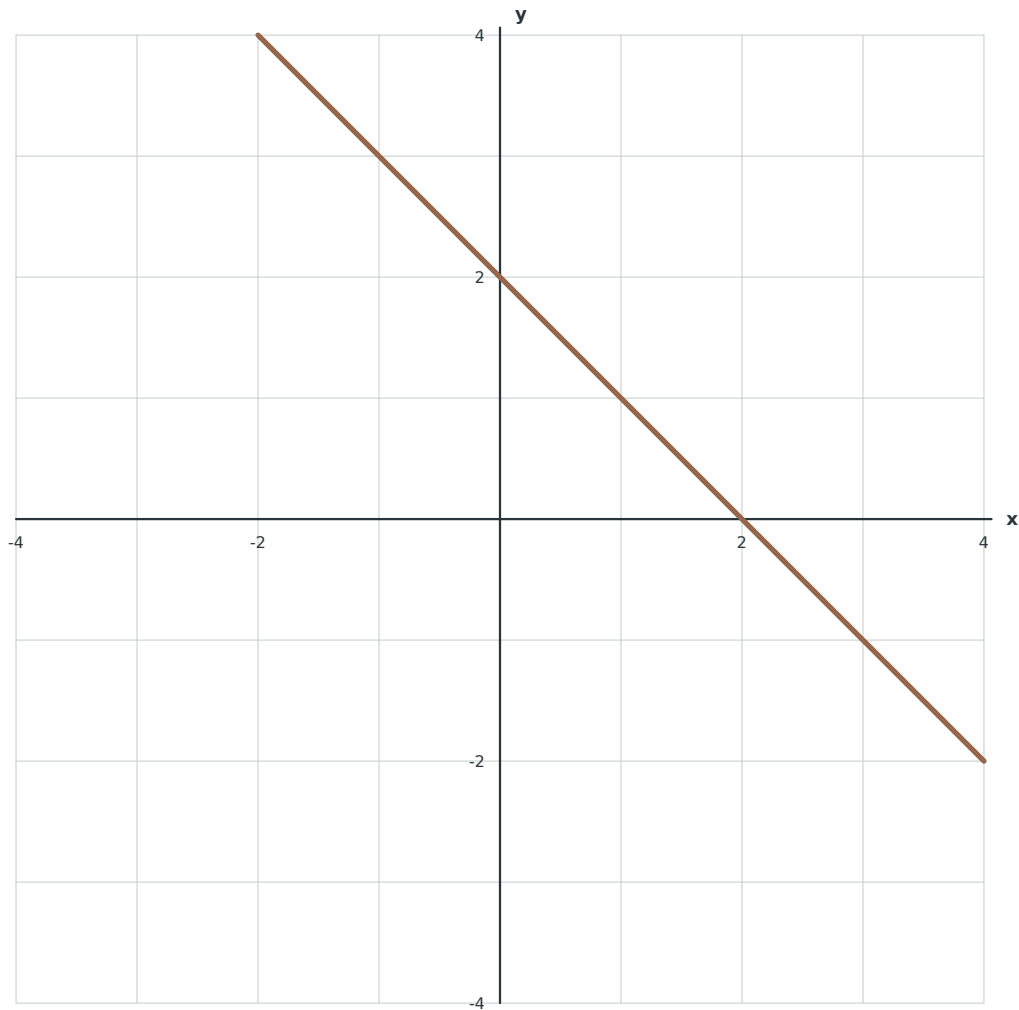


1. How many solutions? no solution.
2. If one, state the intersection. Compare slopes and intercepts.
3. Why does a shared point solve both equations? A shared point satisfies both equations.

Coincident lines

Graph both equations on the same coordinate plane. A shared point is a solution; parallel lines have none and coincident lines share every point.

Line 1: $y = -1x + (2)$; line 2: $y = -1x + (2)$.

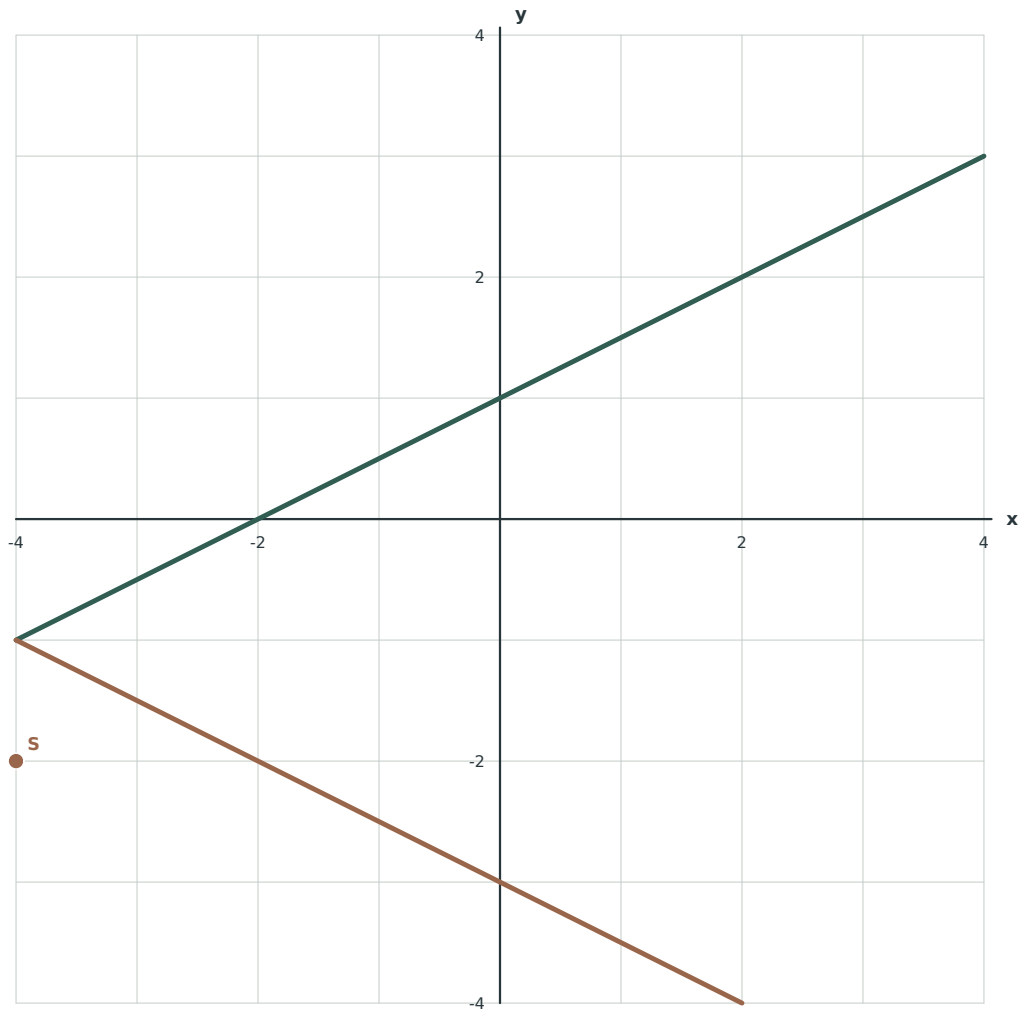


1. How many solutions? infinitely many.
2. If one, state the intersection. Compare slopes and intercepts.
3. Why does a shared point solve both equations? A shared point satisfies both equations.

A fractional meeting

Graph both equations on the same coordinate plane. A shared point is a solution; parallel lines have none and coincident lines share every point.

Line 1: $y = \frac{1}{2}x + (1)$; line 2: $y = -\frac{1}{2}x + (-3)$.



1. How many solutions? one intersection.
2. If one, state the intersection. Intersection ('-4', '-2').
3. Why does a shared point solve both equations? A shared point satisfies both equations.