

Give yourself 15 minutes for this take-home quiz. Notes are not allowed, but calculators or class manipulatives may be used. This quiz will be exchanged and discussed during class.

1a. Create an equation of a line that goes through the following (x, y) points: (2, -1) and (-2, 2). (2 MP*)

1b. What format was your linear equation written in (circle one): point-slope, slope-intercept, or standard. (1 MP*)

2. Choose which algebra property was used for each step of the solution below. (2 MP*)

$$x + 2 = 3x + 4$$

Step	Reason (choose one option per row)
$x + 2 - 2 = 3x + 4 - 2$	<input type="checkbox"/> add additive inverse of 2 to both sides <input type="checkbox"/> subtract additive inverse of 2 to both sides <input type="checkbox"/> associative property of addition
$x = 3x + 2$	<input type="checkbox"/> add additive multiplicative identity left side <input type="checkbox"/> add additive identity on left side <input type="checkbox"/> multiply both sides by multiplicative inverse of 3
$x - 3x = 3x + 2 - 3x$	n/a
$(1 - 3)x = 3x - 3x + 2$	<input type="checkbox"/> commutative property of addition on left, associative property of addition on right <input type="checkbox"/> distributive property on left, commutative property of addition on right <input type="checkbox"/> multiply both sides by multiplicative inverse of 3
$-2x = 2$	n/a
$-\frac{1}{2} \cdot -2x = -\frac{1}{2} \cdot 2$	<input type="checkbox"/> multiply both sides by multiplicative inverse of -2 <input type="checkbox"/> multiply both sides by multiplicative inverse of 2 <input type="checkbox"/> associative property of multiplication
$x = -1$	done!