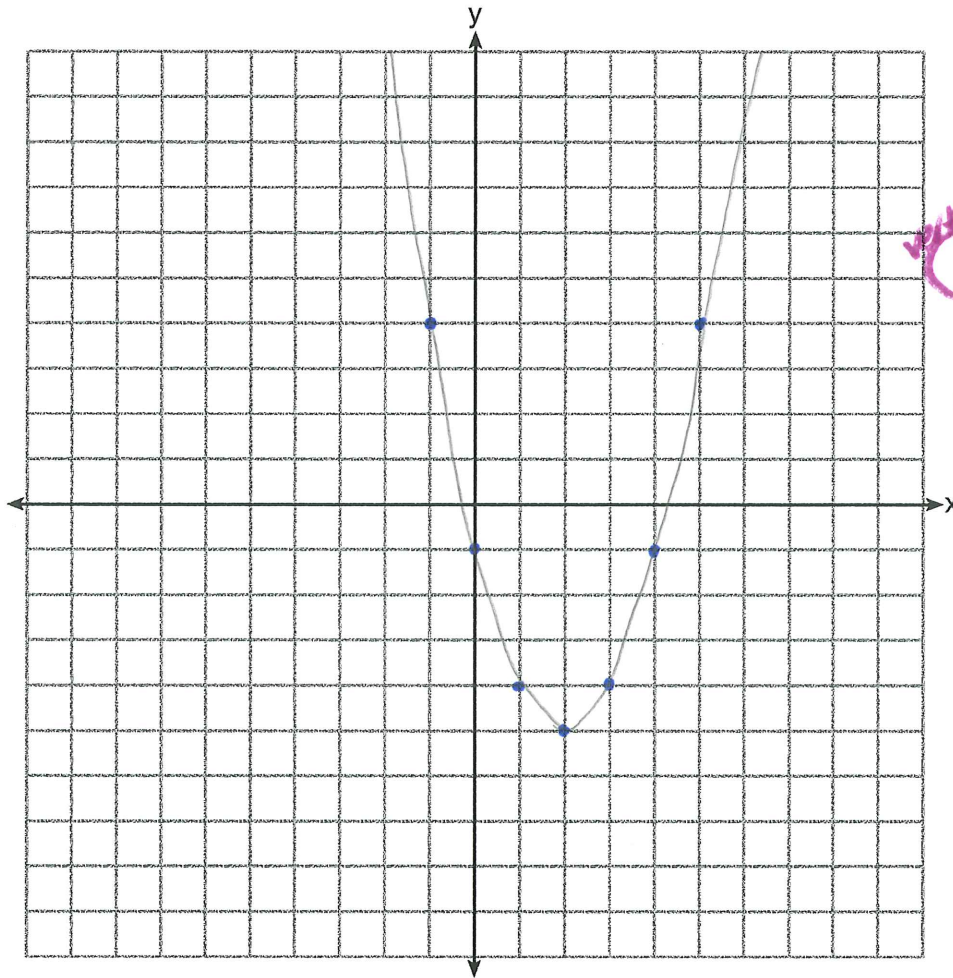


6/4 CW

→ type into $y =$
in calculator

27 On the set of axes below, draw the graph of $y = x^2 - 4x - 1$.



x	y
-1	4
0	-1
1	-4
2	-5
3	-4
4	-1
5	4

State the equation of the axis of symmetry.

$$x = 2$$

28 Amy solved the equation $2x^2 + 5x - 42 = 0$. She stated that the solutions to the equation were $\frac{7}{2}$ and -6 . Do you agree with Amy's solutions? Explain why or why not.

$-84x^2$ Factor	Sum $5x$
$-12x, 7x$	$-5x$
$12x, -7x$	$5x$

$$\frac{2x^2}{2x} + \frac{12x}{2x} - \frac{7x}{-7} - \frac{42}{-7} = 0$$

GCF: $2x$ GCF: -7

$$2x(x+6) - 7(x+6) = 0$$

	$2x$	$+6$
$2x$	$2x^2$	$+12x$
-7	$-7x$	-42

$$(2x-7)(x+6) = 0$$

$2x-7 \neq 0$	$x+6 \neq 0$
$+7 \quad +7$	$-6 \quad -6$
$\frac{2x}{2} = \frac{7}{2}$	$x = -6$
$x = \frac{7}{2}$	

I agree with Amy's solutions because when I solved ~~the~~ for the roots, I also got $\frac{7}{2}$ and -6 . That is where the graph crosses the x-axis.

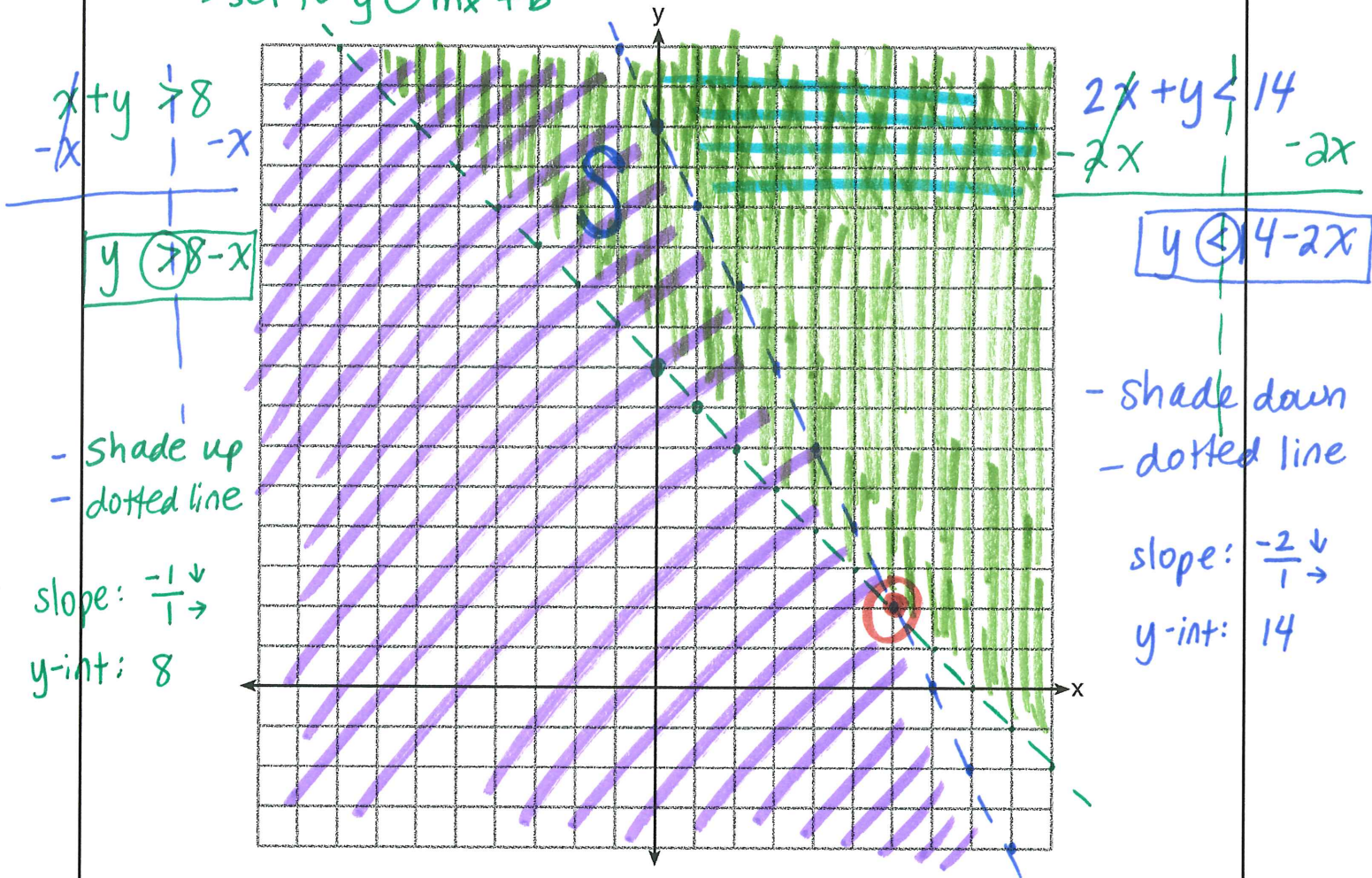
34 The sum of two numbers, x and y , is more than 8. When you double x and add it to y , the sum is less than 14.

$$x + y > 8$$

$$2x + y < 14$$

Graph the inequalities that represent this scenario on the set of axes below.

set to $y = mx + b$



Kai says that the point $(6, 2)$ is a solution to this system. Determine if he is correct and explain your reasoning.

$(6, 2)$ is not in the solution set because the point falls on the dotted lines meaning it is not ~~part of~~ included in the solutions to the inequalities.