

Solve using substitution 10/29

Go over homework.

Graph for the intersection

$$x=4 \text{ and } y=1/2x + 2$$

What is the intersection?

Do you think there is another way to solve for the intersection?

We know what x is can we solve for y? $y=4$ so we can say the intersection is (4,4)

Say we have $6x+7y=20$ and $y=2x$ one is not an easy line to graph but we can use substitution to solve for the intercept. Since we know what y is equal to we can plug that in instead and solve for x. so we have $6x+7(2x)=20$ and solve for x. distribute the 7 and we get $6x+14x=20$ combine like terms and we get $20x=20$ so $x=1$. then we can plug x in and solve for y. $y=2(1)$. $y=2$ so our intersection is (1,2)

given $y=-3/4x+4$ and $y=-1/2x-1$. We can solve for x by setting the two equations equal to each other. $-3/4x+4=-1/2x-1$. Combine like terms we get $5=1/4x$ then multiply both sides by 4 we get x equals 20. Then we can use x to solve for y. we can plug our x into either equation and solve for y. $y=-1/2(20)-1$ $y=-10-1$ $y=-11$ so our intersection

together as a class

$$y=-13/4x+7$$

$$y=-3/4x-9$$

$$x-9y=-24$$

$$x=24-7y$$

$$-3x+7y=-8$$

$$5y+16=x$$

you try

$$y=4/5x-3$$

$$y=7$$

$$-3x-y=-24$$

$$y=3x$$

HW: Kutasoftware worksheet

