

Math 200 - FTC 4

Name _____

Please do your work neatly on separate paper.

1. (2pts) A student, Lily, comes to you and explains that she solved the equation $2x+1 = 7$ differently than you did in class. She shows you her work:

$$\frac{2x}{2} + \frac{1}{2} = \frac{7}{2}$$

$$x + \frac{1}{2} = \frac{7}{2}$$

$$x = \frac{7}{2} - \frac{1}{2}$$

$$x = \frac{6}{2}$$

$$x = 3$$

Figure out what Lily did, then determine if Lily's equation solving technique **always** work for solving equations of the form $ax + b = c$?

2. (2pts) Halfway through a race there is a hurdle to jump over. At each $1/3$ of the way through a race, there are tires to jump through. At each $1/4$ of the way through the race, there is a wall to climb over. At what point(s) in the race are there multiple obstacles? Explain your answer using words and/or drawings.
3. (4pts) Evan asks you if it is possible to add $742_{\text{eight}} + 421_{\text{five}}$. How do you respond?