

**TAKS Objective 4**  
**TEK A.8C**  
**Tutorial**  
**(Grades 10 and 11)**

...interpret and determine the reasonableness of solutions to systems of linear equations.

You ride a bus to and from work each day. You have two payment options. The first option is to purchase a monthly pass for \$25 and pay \$0.75 for each trip. The second option is to pay \$2 for each trip. After how many trips will the cost of the two options be the same?

Equations

$$y = 25 + 0.75x$$

$$y = 2x$$

Answer:  
20 trips

A 7-day trip is being planned. It will cost \$275 per day in Houston and \$400 per day in Fort Worth. The budget is \$2300. How many days should be spent in each city?

Equations

$$H + F = 7$$

$$275H + 400F = 2300$$

Answer:  
4 days in  
Houston &  
3 days in  
Fort Worth