1. Kyle's Cab Company will charge a customer who rides for 10 miles $12.25, but will charge a customer who rides 6 miles, only $8.25. Suppose the rate at which Kyle charges per mile is constant throughout the ride. Write an equation to model the situation. How much will it cost for a 13-mile cab ride?

2. A candle that burns for 2 hours will be 8 inches tall, and after 5 hours it is 2 inches tall. Assume the rate at which the candle burns is constant throughout the time. Write an equation to model this situation. How tall is the candle after 4 hours?

3. Lauren can make 16 bracelets per hour for her new jewelry company. After 3 hours she had 80 bracelets made and ready to sell. Assume the rate at which Lauren makes bracelets is a constant rate. Write an equation to model this situation. How many bracelets will Lauren have after 7 hours?

4. Rick wants to put an ad in the Fraser Times. He checked with the local newspaper and found out it would that 3 want ads will cost him $25 and 7 ads will cost him $37. Assuming the price is linear, write an equation to model the scenario and then tell how much it would cost to put 1 ad in the paper.

5. A 5-gallon bucket that is being filled up with water changes weight as its being filled. The bucket gains ½ pound every minute its being filled. After 6 minutes, the bucket weighs 4.25 pounds. Assuming the bucket being filled in linear, write an equation to model the scenario and then tell how much the bucket weighed without any water in it.

For problems 6-8, write an equation in **slope-intercept form.** **You may want to use point-slope form first. **

6.

X	Y
5	8
7	11
9	14
13	20
17	26

7.

X	Y
-4	1
0	-2
4	-5
6	-6.5
10	-9.5

8.

X	Y
-1	8
2	17
3	20
5	6
8	15