Guided Notes 7.2: Solving One Variable Equations (Parts 1 &2)

[Part 1]

A. Use a table to find the solution of each situation.

1. Susan wants to hire a babysitter for this weekend for her 3 children. Babysitter A charges $10 per child and $5 per hour. Babysitter B charges $15 per child and $2 per hour. When will they charge the same amount?

x	$Y_1 = 30 + 5x$	$Y_2 = 45 + 2x$
0		
1		
2		
3		
4		
5		
6		

When will they charge the same amount?

2. John needs to hire a painter. Painter A charges an initial fee of $175 plus $14.25 per hour. Painter B charges an initial fee of $200 plus $11 per hour. For what number of hours will the two painters charge the same amount of money?

x	F(x)	G(x)
0		
1		
2		

3		
4		
5		
6		
7		
8		

B. Use a table to estimate the solution to each situation. Then use a graphing calculator to approximate the x-intercept (No Graphing Calculator needed; just solve algebraically.)

1. Tara has $800 in a bank account she uses to make automatic payments of her $101.51 monthly cable bill. If Tara stops making deposits to that account, when would the automatic payments make the value of the account zero?

x	F(x)	G(x)
0		
1		
2		
3		
4		
5		
6		
7		
8		

2. Craig has $1850 dollars in a bank account that he uses to make automatic payments of $400.73 on his car loan. If Craig stops making deposits to that account, when would automatic payments make the value of the account zero?

x	F(x)	G(x)
0		
1		
2		
3		
4		
5		

[Part 2]

A. Find the solution of each situation.

1. Susan wants to hire a babysitter for this weekend for her 3 children. Babysitter A charges $10 per child and $5 per hour. Babysitter B charges $15 per child and $2 per hour. When will they charge the same amount?

2. John needs to hire a painter. Painter A charges an initial fee of $175 plus $14.25 per hour. Painter B charges an initial fee of $200 plus $11 per hour. For what number of hours will the two painters charge the same amount of money?

B. Find the solution, the x-intercept, of each situation.

1. Tara has $800 in a bank account she uses to make automatic payments of her $101.51 monthly cable bill. If Tara stops making deposits to that account, when would the automatic payments make the value of the account zero?

2. Craig has $1850 dollars in a bank account that he uses to make automatic payments of $400.73 on his car loan. If Craig stops making deposits to that account, when would automatic payments make the value of the account zero?