Assignment 1.2.4 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per\_\_\_

1. Find the equation of the line that passes between the points $(3, 32) and (33, 52)$

*(keep values exact and show work)*

1. Factor, completely, the following four expressions (*into 2 or more factors*):

$5x^{2}-40$ $5x^{2}-40x$ $5x^{2}-45$ $4x^{2}+22x+24$

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1. Solve the quadratic equation $(3x-10)(5x+70) = 0 $ hopefully the quick way! *The other ways will take you until Valentines Day.*
2. Johnny Depp got a pet snake for his birthday. It was only 10 cm long. However, it grew around 2.5 cm per week. Create three representations of a function for which the inputs are the #weeks since his birthday and the outputs are the length of the snake.

 An Equation A Table A labeled *sketch* of a the graph

E. In this chapter you were given the 9 Function Investigation Questions to use to analyze functions. You will use them now.

Use the 9 Function Investigation Questions to analyze $f(x)=2\sqrt{x+2}-6$

(be sure to make a sketch)

G. You do not have to solve the equations below.

You should be able to solve all of them, however, for the upcoming Ch. 1 test. If you need practice with some or all, then do them for extra practice. Answers will be provided in class. *(you should be able to show your steps clearly as you solve them.)*