AFM Problem Set 1 NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factor the following problems **COMPLETELY**. Show all steps if it can be factored more than once.

**PUT FINAL ANSWER IN SPACE PROVIDED. This is graded for ACCURACY!**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2. 

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_3.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_4. 

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_6. 

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_7.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_8. 

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_9.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_10. 

Find the domain for each of the following functions:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_11. $f\left(x\right)= \sqrt{10-x}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_12. $f\left(x\right)= 2\sqrt{2x+5}$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_13. $f\left(x\right)= \frac{2x}{3x^{2}-5x-12}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_14. $f\left(x\right)= x^{2}-8x+7$

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_15. $f\left(x\right)= \frac{1}{x^{2}+10x+21}$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_16. $f\left(x\right)= \sqrt{x^{2}-4}$