**Make sure you get in and get help if you can't figure out any of these problems if you have to do them for remediation.**

| SM3.Test 2A Remediation Packet | Name |
| :---: | :---: |
| 1. Given $f(x)=x^{4}-2 x^{2}+5 x-3$ find $\mathrm{f}(-2)$ | 2. Which of the following values result in an output of zero, or are zeros of $f(x)=x^{3}-7 x^{2}-6 x+72$ $-6,-4,-3,0,3,4,6$ |
| Use synthetic division with the zero given to find the quadratic to factor. Write in Factored Form, and then list all the zeros from low to high. Sketch a quick graph with the correct x and y -intercepts and shape. |  |
| 3. $f(x)=x^{3}-6 x^{2}-13 x+42$ Given a zero is at 2. |  |
| 4. Write the equation of a quadratic polynomial that has a solution at -13 i . | 5. Factor and sketch a graph for the equation. $y=x^{2}-4 x$ $y=x^{2}-4$ $y=x^{2}+4$ |

6. Use the quadratic Formula to find the solution set for the given equation.
$x^{2}+73=16 x$
7. Use a graphing calculator to find an integer solution, then use the quadratic formula to find the Irrational zeros.

|  |  | $f(x)=x^{3}-8 x^{2}+17 x-4$ |
| :--- | :--- | :--- |

12. Divide using long division:

Divide using long division. SHOW ALL WORK NEATLY.
$\frac{x^{4}-13 x-42}{x^{2}-x-6}$

