Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_ Score \_\_\_\_\_\_\_\_

Are you ready for your Six Weeks Test??

Quiz #4 Take Home Quiz (This will be used during the next class so make sure you have it completed!!)

|  |  |
| --- | --- |
| 1) Find the degree of each. a) $2x^{5}y^{3}z$ b) $6x^{4}+x^{3}-8x+1$ | 2) Find the product.$$-2x^{4}y^{3}\left(4x^{2}y-7xy\right)$$ |
| 3) Perform the given operation a) $\left(2x^{2}-5\right)-\left(7x+9x^{2}-5\right)$ b) $\left(5x^{5}-4x^{3}+2\right)+(3x^{3}-2x^{5}-2)$ |
| 4) Find the product of $(x-3)^{3}$. | 5) Find the quotient.$$\left(x^{4}-2x^{3}-4\right)÷(x-3)$$ |
| 6) How can you determine if a binomial is a factor of a polynomial using division? | 7) Factor. $x^{4}+81x$ | 8) Solve by factoring.   |
| 9) Find the degree and end behavior for the polynomial and sketch a graph.$$\left(x+4\right)^{2}\left(x-3\right)^{3}(x+1)$$ | 10) What are all the POSSIBLE roots of $3x^{4}-5x^{2}+6x-12$? | 11) What is the smallest possible degree for a polynomial with the given roots: $3, 2i and 2\sqrt{3}$ ? |
| 12) Find the EXACT roots for the following polynomial:  |
| 13) Find the EXACT roots for the following polynomial:  |

Just a reminder…

We will be using this next class for review so use your time WISELY and get it done. Oh, and it counts as a quiz grade. ☺