

Secondary 3 Honors
Assignment #1-2

Name _____
Period _____

Use your calculator to compute the following. Express all answers to 2 decimal place accuracy.

1. $(-9.83)^2$
2. 3.97^3
3. -2.31^6
4. $\sqrt{18.92}$
5. $\sqrt[3]{-5.68}$
6. $\sqrt[8]{932}$
7. $55^{3/4}$
8. $18.37 \div \pi$
9. $(-2.63)(-12.15)$
10. 2.7^{-1}
11. Convert $17/27$ to a decimal in EXACT form (don't round)
12. Convert $1.\overline{18}$ to a fraction in simplest form
13. Compute $(-1.8 - 4.9)^3 + |3.92 - 8.65| \div 7.2$
14. Compute 4.5^{14} and express the answer in two ways: decimal notation _____
scientific notation _____

Store -8.73 as your x variable and 4.78 as your y variable using the STO> button on your calculator. Compute each of the following. Double check to make sure -8.73 is indeed stored to x by pressing x and enter. This value will be used for problems 15 – 18.

15. $3|2x - y^2|$
16. $3|2x| - x^2$
17. $5|2x - x^3|$
18. $-3|2y| + x^2$
19. Store 3.5 to x and compute $\sqrt{\frac{5x}{10-x}} + x^{2/3}$

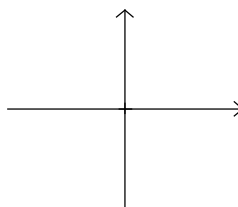
20. Express 890,000 in scientific notation.

21. Use the table on your calculator to fill in the table for $y = 0.2x^5 - x^2 + \frac{1}{x}$

x	y
-0.15	
-0.1	
-0.05	
0	
0.05	
0.1	

22. Sketch a complete graph for the function in #21 indicating the window used.

X min _____ X max _____
Y min _____ Y max _____



Carefully enter the equations on your calculator.

$$y_1 = |8x - 7|$$

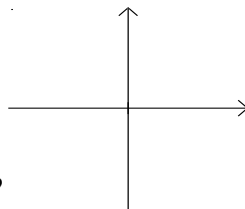
$$y_2 = -x^3 + x^2 + 10$$

You will use these equations for problems 23 – 31.

23. Sketch a graph showing both functions on the same coordinate plane and indicate the window used. Make sure you have shown a complete graph for each function.

X min _____ X max _____

Y min _____ Y max _____



24. How many times do the two functions intersect?

25. Evaluate to 2 decimal place accuracy.

a. $y_1(2.97)$

b. $y_1(83.97)$

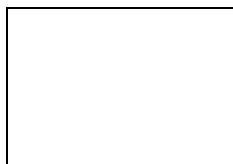
c. $y_1(\pi)$

d. $y_1(-4.38)$

26. Deselect y_1 and sketch the portion of the graph of y_2 that appears on the window $[-1, 2] \times [7, 12]$.



27. Reselect y_1 and sketch a graph of it together with y_2 on the window indicated in #26.



28. How many points of intersection appear in the viewing window in #27?

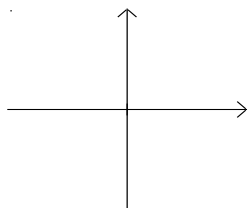
29. Find the coordinates for one of the points of intersection in #27. Express the answer to 1 decimal place.

30. The x value for your point of intersection is now stored for x on the home screen. Substitute the stored value into the equation $y = -\frac{1}{4}x^4 + \frac{1}{3}x^3 + 10x$.

31. Deselect y_2 and graph y_1 using a decimal window (zoom decimal). Trace from $x = 0$, to the right and list how many times the cursor appears on the screen for this window as you trace the graph.

32. List the x and y coordinates of 1 point where the cursor appeared on the screen in #31.

33. Sketch the graph of $y = \sqrt{25 - x^2}$ indicating the window used. Describe the shape of the graph.



Window: [,] x [,]

Shape: