

Name _____

Date _____

Section # _____

<http://www.stmary.ws/highschool/physics/home/>**Mathematics and Scientific Calculator Review**

Read the manual you got with your calculator and use this knowledge to answer the following questions. If you don't have a manual, it's your responsibility to somehow find out how to use your scientific calculator. This assignment may be collected and counted as homework. A quiz similar to this worksheet will be given shortly.

1. $100. = (50.0 + v)/2$ (Tip: Cross Multiply) $v = \underline{\hspace{2cm}}$

2. $19.0 = (100. - 2.00)/t$ $t = \underline{\hspace{2cm}}$

3. $v^2 = 8.00^2 + 2.00(9.80)3.20$ $v = \underline{\hspace{2cm}}$

(Tip: Don't forget to take the square root at the end)

4. $F = (6.70 \times 10^{-11}) (6.00) (1.00 \times 10^3) / (.70)^2$

 $F = \underline{\hspace{2cm}}$ (Answer only in scientific notation)

5. $v = 8.0 \sin 52.^\circ$ $v = \underline{\hspace{2cm}}$

6. $F = (12.0 - 8.00^2) / 3.00$ $F = \underline{\hspace{2cm}}$

7. $10.0 = v^2 / 7.00$ (Hint: Cross Multiply) $v = \underline{\hspace{2cm}}$

8. $8.0t = 10.(5.0 - 3.0)$ $t = \underline{\hspace{2cm}}$

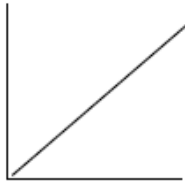
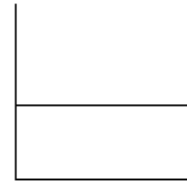
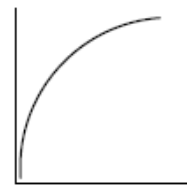
9. $100. = 1/2 (12.)x^2$ $x = \underline{\hspace{2cm}}$

10. $1/5 + 1/3 = 1/R$ (Hint: Common Denominator, Reciprocate) $R = \underline{\hspace{2cm}}$

11. $12. = 1/f$ (Hint: Reciprocate) $f = \underline{\hspace{2cm}}$

12. Solve this equation: $\sin x = .76$ (hint: inverse sine) $x = \underline{\hspace{2cm}}$

13. $6.0 \sin 30. = 15. \sin x$ $x = \underline{\hspace{2cm}}$

Describe these slopes**A****B****C****D****Match the slope descriptions below with the graphs above**

14. increasing slope _____ 15. decreasing slope _____

16. constant positive slope _____ 17. zero slope _____

21. Sketch a graph that shows a constant **negative** slope.

22. What is the equation for the slope of a line? _____

m =

b =