Homework 12 (Due: Friday, December 2)

**Score:**

4 A 90-100% (17-20)

3 B 80-89% (14-16)

2 C 70-79% (10-13)

1 D 60-69% (5-9)

0 U 50-55% (0-4)

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| 1. Explain whether or not the relation below is a function.http://img.sparknotes.com/figures/4/4d7924c96427a340a0f1be4c7e650f7c/rel1.gif | 2. Explain whether or not the relation below is a function.http://www.biology.arizona.edu/biomath/tutorials/functions/images/Function-table-4-copy.gif | 3. Explain whether or not the relation below is a function.Image result for is it a function graph | 4. Explain whether or not the relation below is a function.http://d2vlcm61l7u1fs.cloudfront.net/media%2Fc5b%2Fc5b4e658-1b7a-48a8-93dc-a3aeebd983e6%2FphpurkndL.png |
| 5. Graph the equation $y=2x+3$. | 6. Graph the equation $y=\frac{1}{2}x-2$. | 7. Graph the equation $y=-3x+4$. | 8. Graph the equation $y=-\frac{2}{3}x$. |
| 9. Explain whether the function below is linear or nonlinear, and how you know. | 10. Explain whether the function below is linear or nonlinear, and how you know. | 11. Explain whether the function below is linear or nonlinear, and how you know. | 12. Explain whether the function below is linear or nonlinear, and how you know. |
| 13. Give an example of a relation that is not a function, in graph form. Explain how you know it is **not** a function. | 14. Give an example of a relation that is not a function, in table form. Explain how you know it is **not** a function. | 15. Give an example of a relation that is not a function, in ordered pair form. Explain how you know it is **not** a function. | 16. Give an example of a relation that is not a function, in input/output chart form. Explain how you know it is **not** a function. |
| 17. Use the situation below for #s 17-20.Books & Things rents calculators for $5 per month, plus a rental fee of $12 Identify and interpret the slope and y-intercept of the scenario. | 18. Use the information from #17 to create a graph, where *y* is the overall charge and *x* is the number of months.  | 19. Use the information from #17 to create an equation in the form *y=mx+b*. | 20. Use the information from #17 to answer the question below.Books-A-Lot does not charge a rental fee, but charges $8 per month. Which store should you rent from if you were renting the calculator for 9 months? |
| What (if anything) do you still need more help with? |