Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Algebra II

Score: \_\_\_\_\_\_ / 13

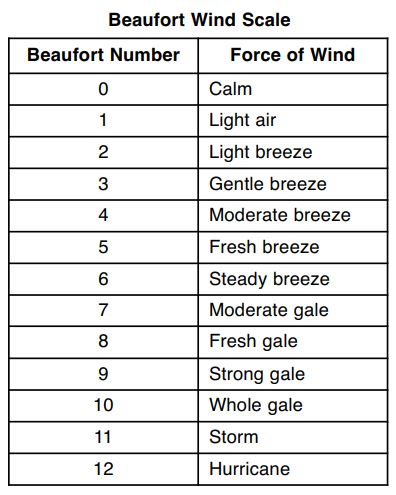
Period: \_\_\_\_\_\_\_\_\_\_\_\_\_ **Cumulative Review #1.1**

***Directions:*** Show all work in order to receive full credit (*including multiple choice questions*). A correct answer with no supporting work will only receive one credit. Be sure to show all appropriate formulas and formula substitutions as part of your work.

1. If , then equals **[correct answer = 1 points, work = 2 points]**

|  |  |
| --- | --- |
| 1) | -9 |
| 2) | -3 |
| 3) | 3 |
| 4) | 6 |

1. Write in simplest form. **[4 points]**
2. The Beaufort Wind Scale was devised by British Rear Admiral Sir Francis Beaufort, in 1805 based upon observations of the effects of the wind. Beaufort numbers,, are determined by the equation , where is the speed of the wind in mph, and is rounded to the nearest integer from 0 to 12.



1. Using the table above, classify the force of wind at a speed of 30 mph. Justify your answer. **[2 points]**
2. In 1946, the scale was extended to accommodate strong hurricanes. A strong hurricane received a value of exactly . Algebraically determine the value of , to the nearest mph. **[4 points]**