Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CC Algebra

Cumulative Review #1.6

**Show work for all questions for full credit**

**& write your answers on the lines provided!!!**

(*If you feel no work is needed you must explain your reasoning.)*

1. A 20 ft tall flagpole cats an 8 foot shadow. At the same time, an oak tree casts a 12 foot

 shadow. How tall is the oak tree?

 A. 4.8 ft C. 30 ft

 B. 24 ft D. 32 ft

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Solve for *h*.

 A.  C. 

 B.  D. 

 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. A full year membership to a gym costs $325 up front with no monthly charge. A monthly membership costs $100 up front and $30 per month. For what number of months is it less expensive to have a monthly membership?

 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. There are two boxes in a storage unit. The volume of the first box is 4x3 + 4x2 cubic units. The volume of the second box is 6x3 – 18x2 cubic units. Write a polynomial (in simplest form) for the total volume of the two boxes.

 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Find the slope of a line defined by the following table:

|  |  |
| --- | --- |
| x | y |
| 0 | 3 |
| 3 | -2 |
| 6 | -7 |
| 9 | -12 |

 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_