**Discovering Exponents**

Write the answers to each of the exercises in the space provided. Your answer must be in the form of either a whole number or a fraction (NO DECIMALS). You are NOT allowed to use a calculator. Simply follow the pattern.

1. 25= \_32\_ b) 34=\_\_\_\_ c) 43= \_\_\_\_

24= \_16\_ 33= \_\_\_\_ 42= \_\_\_\_

23= \_8\_\_ 32= \_\_\_\_ 41= \_\_\_\_

22= \_4\_\_ 31= \_\_\_\_ 40= \_\_\_\_

21= \_2\_\_ 30= \_\_\_\_ 4-1= \_\_\_\_

20= \_1\_\_ 3-1= \_\_\_\_ 4-2= \_\_\_\_

2-1= \_1/2\_ 3-2= \_\_\_\_ 4-3= \_\_\_\_

2-2=\_1/4\_ 3-3= \_\_\_\_ 4-4= \_\_\_\_

2-3= \_1/8\_ 3-4= \_\_\_\_

2-4= \_1/16\_

2-5= \_1/32\_

**Conclusions:**

1. Based on your results above, what conclusions can you draw about positive, negative and zero exponents?
2. Write rules for each of your conclusions that contain only letters. Be all mathematical about it.