Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ Number: \_\_\_\_\_\_\_\_\_

# 2.1a Notes – Positive/Negative Answers with Exponents

Pick 2 numbers between 3 and 10 and write them down below.

Now, make two different exponential expressions out of them by putting an exponent on each number (make your exponents different). Write one in each box:

|  |  |
| --- | --- |
|  |  |

**Which one is greater? How do you know?**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Definition of Exponent:**

**Ex)** $2^{5}$

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Find the following answers. You can use your calculator if you’d like.**

|  |  |  |
| --- | --- | --- |
| $$2^{5}=$$ | $$-2^{5}=$$ | $$\left(-2\right)^{5}=$$ |
| $$4^{3}=$$ | $$-4^{3}=$$ | $$\left(-4\right)^{3}=$$ |
| $$6^{2}=$$ | $$-6^{2}=$$ | $$\left(-6\right)^{2}=$$ |
| $$7^{4}=$$ | $$-7^{4}=$$ | $$\left(-7\right)^{4}=$$ |
| $$3^{6}=$$ | $$-3^{6}=$$ | $$\left(-3\right)^{6}=$$ |
| $$5^{5}=$$ | $$-5^{5}=$$ | $$\left(-5\right)^{5}=$$ |
| $$10^{8}=$$ | $$-10^{8}=$$ | $$\left(-10\right)^{8}=$$ |
| $$1^{9}=$$ | $$-1^{9}=$$ | $$\left(-1\right)^{9}=$$ |

What is similar with all the questions in the first column? What’s similar with all the answers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is similar with all the questions in the second column? What’s similar with all the answers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is similar with all the questions in the third column? What’s similar with all the answers?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the question $(-9)^{5}$ , is your answer going to be positive or negative? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why will your answer be that way?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For the question $(-9)^{4}$, will your answer be positive or negative?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why will your answer be that way? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_