**Exponent Properties:**

|  |  |
| --- | --- |
| **Multiply Same Bases = \_\_\_\_\_\_\_\_\_\_\_\_ Exponents** | **Exponent of 0 = \_\_\_\_\_\_\_** |
| **Divide Same Bases = \_\_\_\_\_\_\_\_\_\_\_\_ Exponents** | **Fraction Raised to Exponent = Multiply Exponents to Numerator and Denominator** |
| **Exponent Raised to Exponent = \_\_\_\_\_\_\_\_\_\_\_\_\_Exponents** | **Negative Exponents** |

1. If , which of the following could be a value for j?

a) 6 b) 1 c) 0 d) 1/3 e) -1/3

2.

3.

4.

5. If the yth term in a sequence is what is the 10th term in the sequence?

a) 60 b) 1,024 c) 1,536 d) 3,072 e) 6,144

11. Jody is picking a movie to watch this evening. Of the movies in her cabinet, 9 are romantic comedies. She will pick one movie at random. If the probability of the selected movie being a romantic comedy is 25%, how many movies are on the shelf?

a) 9 b) 24 c) 25 d) 36 e) 48

6. If ?

a) 4 b) 24 c) 36 d) 72 e) 192

7. If of z is 42, what is 5/7 of z?

a) 10 b) 18 c) 45 d) 70 e) 98

12. A store owner raises the price of a $50 item 20%. After it does not sell, he reduces the price by 20%. What is the final price of the item?

a) $48 b) $49 c) $50 d) $60 e) $100

8. The regular price for a certain bicycle is $125.00. If that price is reduced by 20%, what is the new price?

a) $100 b) $105 c) $112.50 d) $120.00 e) $122.50

9. In a group of 25 students, 16 are female. What percentage of the group is female?

a) 16% b) 40% c) 60% d) 64% e) 75%

13. In 1950, the populations of town X and town Y were equal. From 1950-1960, the population of town X increased by 60% and the population of town Y decreased by 60%. In 1960, the population of town Y was what % of the population of town X?

a) 25% b) 36% c) 40% d) 60% e) 120%

10. If 115% of a number is 460, what is 75% of the number?

a) 280 b) 300 c) 320 d) 345 e) 400