Adding Exponents

Adding exponents may seem like a duanting task at first, but once we know a few key terms, you will find that adding exponents is not so bad at all.

-Exponentiations are always written with a base number and an exponent: b^n
-When multiplying two exponentiations with the same base number, we can simply add their exponents to find our answer quickly.

Example: 4^3 x 4^2 = ?

This equation is the same as writing, $4^{(3+2)} = 4^5 = 4 \times 4 \times 4 \times 4 \times 4 = 1{,}024$

For each problem below, first add the exponents if the bases are the same in the equation. Write out your result and solve the problem.

1) 2^3 x 2^2 = ?

2) 3^1 x 3^0 = ?

3) 3^4 x 3^5 = ?

4) 4^6 x 4^0 = ?

5) 4^4 x 4^1 = ?

6) 5^2 x 5^3 = ?

7) 5^5 x 5^0 = ?

8) 6^2 x 6^2 = ?