POWER OF A POWER

To find the power of a power, you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the exponents!

(64)5 = (64)(64)(64)(64)(64)

= 64+4+4+4+4+4

= 645

=620

Now you try it. Simplify:

(84)3= (k7)5= (25)2= (w4)6=

[(32)3]2= [(42)4]6=

To find the power of a product, find the \_\_\_\_\_\_\_\_\_\_\_\_ of each factor and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

(4p3)4= 44p3 4

= 256p12

Now lets try it. Simplify:

(-2m7n6)5 = (8b9)2 = (-5w2z8)3 = [(3x2y2)2]3 =

I shipped a box in the shape of a cube. Each side measures 3c6d2 inches. Express the volume of the cube as a monomial.

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