6th Grade Math
Review: Powers and Exponents

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For today's homework, you will need to copy each note and example on to your sheet of notebook paper.

Please make sure you pause while you write your proper heading on your paper.

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You do not need to color code your paper

Notes on Exponents/Powers:

A power is the product of repeated factors

$$3^5 = 3 \cdot 3 \cdot 3 \cdot 3 \cdot 3$$

$\underbrace{}_{Power}$

$$= \quad 9 \cdot 9 \cdot 3$$

$$= \quad 81 \cdot 3$$

$$= 243$$

So $3^5 = 243$

* You <u>can</u> do this on a calculator!

$$2^4 = 2 \cdot 2 \cdot 2 \cdot 2$$

$$= \quad 4 \cdot 4$$

$$= \quad 16$$

So $2^4 = 16$

Exercises

① $8^2 = 8 \cdot 8$

$\quad = 64$

② $5^3 = 5 \cdot 5 \cdot 5$

$\quad = 25 \cdot 5$

$\quad = 125$

$$\begin{array}{r} \overset{2}{2}5 \\ \times 5 \\ \hline 125 \end{array}$$

③ $7^2 =$

$\quad = 49$

④ $c^5 = c \cdot c \cdot c \cdot c \cdot c$

⑤ $a^3 = a \cdot a \cdot a$

⑥ $m^2 =$

Write as a power:

⑦ $9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 = 9^{5}$　⑧ $14 \cdot 14 = 14^{2}$

⑨ $b \cdot b \cdot b = b^{3}$　⑩ $n \cdot n \cdot n = n^{3}$

⑪ $z \cdot z \cdot z \cdot z \cdot z \cdot z =$　⑫ $d \cdot d \cdot d \cdot d =$

⑬ $148^{3} =$　⑭ $51^{4} =$

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