READING AND COMPARING NUMBERS ... oh my!

1. Which of the following is *BIGGEST*?

   2^6 64

   5^3 125

   3^5 243

   6^2 36

   Strategy: (Just do the math this time.)

2. Is x^4 always bigger than x^2 ?

   No. Try zero or one. (Or one-half!)

3. Which of these is equal to one-half of 4^{10}?

   2^{10}

   2^{19}

   2^{18}

   4^5

   $4^{10} = (2^2)^{10}$

   $4^{10} = 2^{20}$

   so $2^{20} \div 2 = 2^{19}$

4. Which of these is smallest?

   $5^5 \cdot 3^5$ $(15)^5$

   $8^5 \cdot 2^5$ $(16)^5$

   $9^5 \cdot 6^5$ $(54)^5$

   $3^5 \cdot 2^5$ $(6)^5$

   Strategy: Use a common exponent.

5. Choose the *largest* number:

   4^8 $(2^2)^8$ 2^{16}

   8^4 $(2^3)^4$ 2^{12}

   2^8 2^8

   16^2 $(2^4)^2$ 2^8

   Strategy: Use a common base. 4