8.72×10^7

$8.72 \ E \ 7$ This is how it looks on a graphing calculator.

Find each. Give answer in Scientific Notation.

1. $(2.5 \times 10^3)(1.43 \times 10^6) =$ 3.575×10^9

3575000000

2. $\dfrac{1.788 \times 10^{15}}{4.8 \times 10^3} =$ 3.725×10^{11}

You can now finish Hwk #6

pages 402-403

Problems 1-3, 10-13, 16-18, 21, 42, 43

Due Monday, February 16

3^2

What is the above called?

Power: Has two parts

Base   Exponent

Write each as a single Power. Write answers without negative exponents.

1. $A \cdot A \cdot A \cdot A \cdot A$ A^5

2. $B^1 \cdot B^4$ = B^5

     $B \cdot B \cdot B \cdot B \cdot B$

3. $C^4 \cdot C^2 \cdot C^3$ C^9

4. $D^5 \cdot D^{-3} \cdot D^1 \cdot D^{-6}$ $D^{5+-3+-6+1} = D^{-3}$

     $= \dfrac{1}{D^3}$

Property   **Multiplying Powers With the Same Base**

For every nonzero number a and integers m and n, $a^m \cdot a^n = a^{m+n}$.

When you multiply powers with the same base you

ADD EXPONENTS

Simplify each. Write each answer without negative or zero as an exponent.

1. $C^4 \cdot C \cdot C^6$

     C^{11}

2. $W^6 X^4 W^{-9} X^3 W$

     $W^{-2} X^7 = \dfrac{X^7}{W^2}$

3. $(2R^3 S^4)(5R^{-8} S^3)$

     $= \dfrac{10 S^7}{R^5}$

Get a small white board

2. $a^6 \cdot a \cdot a^{-2} = a^5$

3. $w^{-9} \cdot w^{-4} \cdot w^3 = \dfrac{1}{w^{10}}$

4. $Q^3 \cdot R^5 \cdot Q \cdot R^5 = Q^4 R^{10}$

5. $(6x^4 y)(5x^2 y^3) = 30x^6 y^4$

6. $(4c^5 d^9)(3c^{-7} d) = \dfrac{12d^{10}}{c^2}$

$2 \times 2.5 = 5$

1. $(2 \times 10^6)(2.5 \times 10^4) = 5 \times 10^{10}$

$10^6 \times 10^4 = 10^{10}$

2. $(3 \times 10^{-4})(1.1 \times 10^{-8})$

3.3×10^{-12}

3. $(6 \times 10^7)(9 \times 10^5) = 54 \times 10^{12}$

$= 5.4 \times 10^{13}$