CHECK FOR UNDERSTANDING

Put your name. No asking questions/no notes. Hold it up when done!

Calculate. All answers must be in scientific notation.

1) $(2.84 \times 10^6)(3 \times 10^4)$ 2) $(7.65 \times 10^5) - (1.4 \times 10^3)$

3) $\frac{4 \times 10^{50}}{8 \times 10^{47}}$

Calculate. All answers 1) $(2.84 \times 10^6)(3)$	must be in scientific notat $8 imes 10^4)$	ion.
$\frac{2}{(7.65 \times 10^5)} -$	(1.4×10^3)	
3) $\frac{4 \times 10^{50}}{8 \times 10^{47}}$		
1) $2.84 \cdot 3 = 8.52$ 6 + 4 = 10	2) 765000 - 1400	1) $4 \div 8 = 0.5$ 50 - 47=3
8.52×10^{10}	763600	0.5×10^3
	7.636×10^{3}	5 × 10 ²

p.63 (1, 2, 4, 8) and p.65 (19, 21, 22)

1) 8.97 x 10⁸ 2) 3.762 x 10⁻⁷ (changed from 37.62 x 10⁻⁸) 21) 1.334864 x 10¹⁰ 4) 6.3 x 10⁴ 8) 9.563 x 10¹¹

19) 4 x 10² (changed from 0.4 x 10³) 22) 1.115 x 10⁵

OBJECTIVE:

Solve story problems involving adding, subtracting, multiplying, dividing scientific notation









Story Problem

The distance from the Earth to the Sun is 1.46×10^8 kilometers. The distance from the Earth to the Moon is 3.84×10^5 kilometers. About how many times greater is the distance from the Earth to the Sun than the Earth to the Moon?

Add, subtract, multiply, or divide?

The bedroom of our house is 1,200 cubic meters. We know that there are 3.4×10^9 particles of dust per cubic meter. How many particles of dust are in the bedroom of our house?

 $\begin{array}{l} \mbox{1200 cubic meters; EACH ONE has 3.4 x } 10^9 \mbox{ particles } \mbox{ multiply!} \\ (1200) \cdot \left(3.4 \times 10^9\right) \\ \left(1.2 \times 10^3\right) \cdot \left(3.4 \times 10^9\right) \end{array}$

 $4.08 imes 10^{12}$ dust particles











TOMORROW'S ACTIVITY:

•We will be doing an in-class activity called "levels" where you must get every question in a level correct to move onto the next level. •However, it is difficult for me to check EVERYONE'S levels at the same time.

 I am going to recruit <u>three</u> student checkers – instead of doing the problems during class tomorrow, they will help check student work

 Those checkers will instead do the levels TONIGHT for homework (on top of the other homework I am about to assign)

 I will also send you home with an answer key so that you can be extra sure you know how the problems work

Homework

Story Problem Worksheet

NOTE:

- Every answer MUST be in scientific notation.
- $^{\circ}$ You may use a calculator on some of them the sheet will tell you which ones