

*This is a self-grading worksheet; the answers are at the bottom.*

*Fold the bottom up along the dotted line to cover the answers until you complete it.*

A. In the blank at the left, state the number of significant digits. At the right, state the measurement in a different notation (scientific or decimal) for practice. Make sure to keep the number of significant digits the same in each notation.

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| 1. _____ $1.2 \times 10^5$ _____   | 5. _____ 5020.00 _____               |
| 2. _____ 780,000 _____             | 6. _____ 600 _____                   |
| 3. _____ 0.000101 _____            | 7. _____ 0.48992 _____               |
| 4. _____ $3.084 \times 10^7$ _____ | 8. _____ $8.00 \times 10^{-3}$ _____ |

B. Round these numbers to 2 significant digits:

- |                                |                  |
|--------------------------------|------------------|
| 1. $7.19 \times 10^{-2}$ _____ | 4. 455,000 _____ |
| 2. 0.0000435002 _____          | 5. 6040 _____    |
| 3. $8.99 \times 10^4$ _____    | 6. 0.265 _____   |

C. Calculate and round your answer to the correct number of digits. You can express your answer in decimal or scientific notation as long as the number of digits is correct.

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|---|--|
| 1. $3.2 \times 4.0 \times 12.399$ _____                               | 4. $\frac{1.000 \times 10^{-6}}{0.1000}$ _____ |
| 2. $\frac{(2.0 \times 10^2)(3.214 \times 10^{-7})}{546.88}$ _____     | 5. $5020 + 17.0 + 400$ _____                   |
| 3. $\frac{7000 \times 0.00230 \times 12.0}{17400 \times 0.030}$ _____ | 6. $800.0 + 62.050 - 700$ _____                |

ANSWERS:

<b>PART A</b>		
1. 2; 120,000	5. $7.8000 \times 10^5$	
2. 5; $7.8000 \times 10^5$	6. $1.01 \times 10^{-4}$	
3. 3; $1.01 \times 10^{-4}$	7. 4; 30840000	
4. 4; 30840000	8. 6; $5.02000 \times 10^3$	
5. 6; $5.02000 \times 10^3$	1. $6 \times 10^2$	
6. 1; $6 \times 10^2$	2. 5; $4.8992 \times 10^{-1}$	
7. 5; $4.8992 \times 10^{-1}$	3. 0.00800	
8. 3; 0.00800	<b>PART B</b>	
1. $7.2 \times 10^{-2}$		1. 160
2. 0.000044		2. $1.2 \times 10^{-7}$
3. $9.0 \times 10^4$		3. 0.4
4. 460,000		4. $1.000 \times 10^{-5}$
5. 6000		5. 5440
6. 0.26		6. 200
<b>PART C</b>		