

Name: _____

Period: _____

Date: _____

Significant Figures

1. How many significant figures are in each of these measurements?

- | | | | |
|----------|----------------|----------|--------------|
| <u>3</u> | a. 123 km | <u>5</u> | f. 4,5600 m |
| <u>3</u> | b. 0.123 km | <u>2</u> | g. 0.078 m |
| <u>3</u> | c. 0.000123 km | <u>4</u> | h. 0.07080 m |
| <u>3</u> | d. 123,000 km | <u>5</u> | i. 98,001 m |
| <u>5</u> | e. 40,506 km | <u>3</u> | k. 0.0403 |

2. Round off to the number of significant figures shown in parentheses.

- | | | | |
|-------------------|-----------------|------------------|------------------|
| a. 314.721 m (4) | <u>314.7 m</u> | e. 87.073 m (2) | <u>87 m</u> |
| b. 0.001775 m (2) | <u>0.0018 m</u> | f. 4.3621 m (1) | <u>4 m</u> |
| c. 8793 m (2) | <u>8800 m</u> | g. 0.01552 m (4) | <u>0.01552 m</u> |
| d. 87.073 m (3) | <u>87.1 m</u> | h. 1.7777 m (2) | <u>1.8 m</u> |

3. Give your answers to the correct number of significant figures.

- a. $74.626 \text{ g} - 28.34 \text{ g} = \underline{46.29 \text{ g}}$
- b. $61.2 \text{ m} + 9.3517 \text{ m} + 8.6 \text{ m} = \underline{79.2 \text{ m}}$
- c. $9.44 \text{ kg} + 2.111 \text{ kg} = \underline{11.55 \text{ kg}}$
- d. $1.36 \text{ cm} + 10.17 \text{ cm} = \underline{11.53 \text{ cm}}$
- e. $34.61 \text{ m} + 17.3 \text{ m} = \underline{51.9 \text{ m}}$
- f. $10.340 \text{ m} + 109.238 \text{ m} + 5.0 \text{ m} = \underline{124.6 \text{ m}}$

4. Give your answer to the correct number of significant figures.

- a. $2.10 \text{ km} \times 0.70 \text{ km} = \underline{1.5 \text{ km}^2}$
- b. $2.4526 \text{ m} / 8.4 \text{ m} = \underline{0.29}$
- c. $0.365 \text{ g} / 0.0200 \text{ g} = \underline{18.3}$
- d. $8.3 \text{ m} \times 1.22 \text{ m} = \underline{10 \text{ m}^2}$
- e. $8432 \text{ cm} / 12.5 \text{ cm} = \underline{675}$
- f. $5.3 \text{ km} \times 0.255 \text{ km} = \underline{1.4 \text{ km}^2}$