

Name: _____ Due Date: Jan 11, 2018

Significant figures:

Refer to the video: Significant Figures – Addition and Subtraction Rules – Example 1

1. $12 \text{ cm} + 6.143 \text{ cm} + 1.5067 \text{ cm} = ?$ Answer: 20. cm
Answer has how many significant figures: 2

Refer to the video: Significant Figures – Addition and Subtraction Rules – Example 2

2. $120.98 \text{ mL} - 4 \text{ mL} = ?$ Answer: 117 mL
Answer has how many significant figures: 3

Refer to the video: Significant Figures – Addition and Subtraction Rules – Example 3

3. $2564 \text{ km} + 200 \text{ km} = ?$ Answer: 2800 km
Answer has how many significant figures: 2

Refer to the video: Significant Figures – Addition and Subtraction Rules – Example 4

4. $2.29 \times 10^{-6} \text{ m} + 5.00 \times 10^{-9} \text{ m} = ?$ Answer: 0.0000230 m
Answer in scientific notation: $2.30 \times 10^{-6} \text{ m}$
Answer has how many significant figures: 3

Refer to the video: Significant Figures – Multiplication and Division Rules – Example 1

5. $42.00 \text{ cm} \times 0.010 \times 5540 \text{ cm} = ?$ Answer: 2300 cm²
Answer in scientific notation: $2.3 \times 10^2 \text{ cm}^2$
Answer has how many significant figures: 2

Refer to the video: Significant Figures – Multiplication and Division Rules – Example 2

6. $0.0325 \text{ g} / (2.0 \text{ g/cm}^3) = ?$ Answer: 0.016 cm³
Answer has how many significant figures: 2

Refer to the video: Significant Figures – Multi-Step Calculations – Example 1

7. $5540 \text{ cm} - \frac{(4.56 - 0.001)}{120} \text{ cm} = ?$ Answer: 5540 cm
Answer has how many significant figures: 3

Refer to the video: Significant Figures – Multi-Step Calculations – Example 2

8. $\frac{(31.9995 - 31.9990)}{31.9990} \times 100 = ?$ Answer: 0.002 %
Answer has how many significant figures: 1