

Review of Chemistry 11

Significant digits and SI units

Part I: Indicate the number of significant digits for each of the following measurements.

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|--------------------|-------------------|
| 1. 20.87 g _____ | 4. 1700 °C _____ |
| 2. 0.9095 m _____ | 5. 0.0093 L _____ |
| 3. 0.0246 km _____ | 6. 1.000 mm _____ |

Part II: Round the following measures given the number of significant digits.

Measurement	Rounded value	# of sig.dig's
7. 9.572 mm	_____	2
8. 10.75 g	_____	3
9. 0.0647 mol	_____	2
10. 75.93 km/h	_____	3
11. 759.026 cm ³	_____	4

Part III: Perform the indicated operations. Give the answer to the correct number of significant digits.

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|----------------|----------------|-----------------|
| 12. Add | 13. Add | 14. Add |
| 9.54 g | 8.55 mL | 480 km |
| 6.578 g | 11.6 mL | <u>24.07 km</u> |
| <u>10.02 g</u> | <u>20.0 mL</u> | |

- | | | |
|---------------|---------------|----------------|
| 15. Subtract | 16. Subtract | 17. Subtract |
| 136 g | 16.56 mL | 51.08 mol |
| <u>3.49 g</u> | <u>6.3 mL</u> | <u>9.9 mol</u> |

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|--|--|
| 18. 18.4g/mL x 5.5mL = | 19. $\frac{6.0 \text{ g}}{24.3 \text{ g/mol}} =$ |
| 20. $\frac{358.6 \text{ g}}{2.02 \text{ mol}} =$ | 21. $\frac{2.64 \text{ g}}{5.38 \text{ g/mL}} =$ |

Part IV: Complete the tables

Name and Formula	Molar Mass	Mass OR Moles
1. Ammonium Sulphate		3.00 mg
2. Cl ₂		7.04 μmol
3. Sodium Chlorite		0.500 mg
4. hydrofluorosilic acid H ₂ SiF ₆		8.00 mg
5. Sodium dichromate		13.1 g
6. Pb(CH ₃ COO) ₂ ·3H ₂ O		0.210 mol
7. Sulfur dioxide		1.60 mol

8. K_2CO_3		82.8 g
9. Aluminum oxide		25.5 g
10. $\text{Cu}(\text{ClO}_3)_2$		2.50 mol