

Faculty Submitting: Allison Kelly

Specify here whether “Pre” or “End” of Unit and the Unit #: Pre Unit 1

<i>LOs: Recognize Uncertainty in measurements, use significant figures in dimensional analysis problem solving, and understand the difference between accuracy and precision</i> <i>Units and Dimensional Analysis</i>	
Unit 1_ Question 1	Canvas Question Type: Multiple Answer
	Every measurement provides what kinds of information?
	Correct Answers: magnitude standard of comparison indication of uncertainty Wrong Answers: direction time
Read More	https://openstax.org/books/chemistry-2e/pages/1-4-measurements
Unit 1_ Question 2	Canvas Question Type: Matching
	Match the property to the base unit Length - meter (m) mass – kilogram (kg) time – second (s) temperature – kelvin (K) electric current – ampere (A) amount of substance – mole (mol) luminous intensity – candela (cd) ...)
Read More	https://openstax.org/books/chemistry-2e/pages/1-4-measurements
Unit 1_ Question 3	Canvas Question Type: Multiple Choice
	A measurement is reported as 270.5 m. Which statement is true about this measurement?

Commented [KMA1]: Note to future Allison, add distractors

Commented [KMA2]: This would be a good one to build out into a question group

	<p>Correct Answer: The digits 2, 7 and 0 are certain, but the 5 is an estimate</p> <p>Wrong Answers: All of the digits are certain The 2 and the 7 are certain, but the 0 and the 5 are estimated The length is 270.50 m</p>
Read More	https://openstax.org/books/chemistry-2e/pages/1-5-measurement-uncertainty-accuracy-and-precision
Unit 1_ Question 4	Canvas Question Type: Matching
	<p>Match the rule for rounding to the correct number of significant figures with the operation where it should be used</p> <p>Addition and Subtraction – Round to the same number of decimal places as the number with the least number of decimal places</p> <p>Multiplication or Division – Round to the same number of digits as the number with the least number of significant figures</p>
Read More	https://openstax.org/books/chemistry-2e/pages/1-5-measurement-uncertainty-accuracy-and-precision
Unit 1_ Question 5	Canvas Question Type: Multiple Drop Down
	For each of the following numbers, indicate the correct method for rounding to three digits
	<p>4.352 [DropOne] 6.785 [DropTwo] 3.776 [DropThree] 7.355 [DropFour]</p> <p><u>DropOne</u> Correct: Round Down Wrong: Round Up</p> <p><u>DropTwo</u> correct: Round Down wrong: Round Up</p>

Commented [KMA3]: Relatively easy to build out into a question group

	<p><u>DropThree</u></p> <p>Correct: Round Up wrong: Round Down</p> <p><u>DropFour</u></p> <p>Correct: Round Up Wrong: Round Down</p>
Read More	https://openstax.org/books/chemistry-2e/pages/1-5-measurement-uncertainty-accuracy-and-precision
Unit 1_ Question 6	Canvas Question Type: Multiple Choice
	The density of a piece of metal is 0.891 g/cm^3 . Which of the following sets of measurements is both accurate and precise?
	<p>Correct Answer: 0.891 g/cm^3, 0.890 g/cm^3, 0.892 g/cm^3</p> <p>Wrong Answers: 0.891 g/cm^3, 0.899 g/cm^3, 0.883 g/cm^3 0.881 g/cm^3, 0.882 g/cm^3, 0.880 g/cm^3</p>
Read More	https://openstax.org/books/chemistry-2e/pages/1-5-measurement-uncertainty-accuracy-and-precision#fs-idm1827280
Unit 1_ Question 7	Canvas Question Type: Fill in Multiple Blanks
	[Precise] values agree with each other, [accurate] values agree with a true value
Read More	https://openstax.org/books/chemistry-2e/pages/1-5-measurement-uncertainty-accuracy-and-precision#fs-idm1827280
Unit 1_ Question 8	Canvas Question Type: Multiple Answer
	Select all values that are conversion factors
	<p>Correct Answers: 0.878 g/mL 2.54 cm/1 inch</p> <p>Wrong Answers: 6.12 lbs 8.9 m^2</p>

Commented [KMA4]: Relatively easy to build out into a question group

Commented [KMA5]: Could be built out into a question group

Read More

<https://openstax.org/books/chemistry-2e/pages/1-6-mathematical-treatment-of-measurement-results>