HOME WORK 1
CHAPTER 1

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Which one of the following is an intensive property? 1) _____
A) amount
B) temperature
C) volume
D) mass
E) heat content

2) Which one of the following is the highest temperature? 2) _____
A) 302 K
B) 96 °F
C) 38 °C
D) none of the above
E) the freezing point of water

3) Iron has a density of 7.9 g/cm^3. What is the mass of a cube of iron with the length of one side equal to 55.0 mm? 3) _____
A) 2.1×10^4 g
B) 4.3×10^2 g
C) 2.3×10^{-2} g
D) 1.3×10^3 g
E) 1.4 g

4) The number with the most significant zeros is _____. 4) _____
A) 0.02500001
B) 2.5100000
C) 0.00002510
D) 2.501×10^{-7}
E) 250000001

5) Round the number 3456.5 to two significant figures. 5) _____
A) 3400 B) 3000 C) 3500 D) 3400.0 E) 3000.0

6) How many significant figures should be retained in the result of the following calculation? 6) _____

$$12.00000 \times 0.9893 + 13.00335 \times 0.0107$$

A) 2 B) 3 C) 4 D) 5 E) 6

7) Accuracy refers to _____. 7) _____
A) how close a measured number is to zero
B) how close a measured number is to infinity
C) how close a measured number is to other measured numbers
D) how close a measured number is to the true value
E) how close a measured number is to the calculated value

8) Which of the following has the same number of significant figures as the number 1.00310? 8) _____

A) 199.791 B) 1×10^6 C) 8.66 D) 100 E) 5.119

9) Precision refers to _____. 9) _____

A) how close a measured number is to the calculated value
B) how close a measured number is to other measured numbers
C) how close a measured number is to the true value
D) how close a measured number is to infinity
E) how close a measured number is to zero

10) Which calculation clearly shows a conversion between temperatures in degrees Celsius, °C, and temperature in Kelvins, K? 10) _____

A) K = [°C − 32] / 1.8
B) K = °C
C) K = °C + 273.15
D) K = [°C + 32] × 1.8
E) K = 273.15 − °C