

1 (10 points total). Answer 2 out of 3 parts below. Indicate the 2 parts you want me to grade by circling their part numbers.

a. Clearly described the differences between a liquid and a gas.

b. Give the number of significant figures for each of the following clearly describing how you come to this answer. If you wanted to do an accurate calculation, which number would you use (give me your reasoning).

$$5.132 \times 10^5 \rightarrow$$

$$5.1 \times 10^5 \rightarrow$$

$$510,000 \rightarrow$$

c. Convert the following numbers from scientific notation to conventional numbers or from conventional numbers to scientific notation, as required.

$$2.18 \times 10^{-5} =$$

$$3,200,000,000 =$$

$$0.000,004 =$$

$$4.145 \times 10^3 =$$

$$34,200 =$$

2 (10 points total). Clearly and as completely as possible describe the structure of a ^{31}P atom.

3 (10 points total). Balance each of the following chemical reactions.

