**Separating the Components of a Ternary Mixture**

(Turn-in this part)

Show your work to receive credit. KEEP THE SAME NUMBERING SYSTEM, and don’t mess-up this document! Remember to include your name and date. (12 questions, 60 points total).

Unknown number: n/a

Mass of evaporating dish (see video) 44.3941 g

Mass of evaporating dish plus unknown (video) 47.6919 g

1. Mass of unknown mixture: \_\_\_\_\_\_\_\_

Step 1: Sublimation to isolate the NH4Cl

Mass of evaporating dish plus unknown after subliming: 46.8716 g

1. Mass of ammonium chloride \_\_\_\_\_\_\_\_

Step 2: Filtration and oven drying to isolate the sand

1. Mass of filter paper: (video) \_\_\_\_\_\_\_\_
2. Mass of beaker into which the loaded filter paper is placed and baked: (video)

\_\_\_\_\_\_\_\_

Mass of beaker, filter paper, and dried residue: 53.5577 g

1. Mass of sand: \_\_\_\_\_\_\_\_

Step 3: Evaporation to isolate the NaCl

1. Mass of evaporating dish: (use same as above) \_\_\_\_\_\_\_\_
2. Mass of watch glass (the lid on the beaker): (video) \_\_\_\_\_\_\_\_

Mass of evaporating dish, salt, and watch glass after drying in oven: 73.9662 g

1. Mass of NaCl: \_\_\_\_\_\_\_\_

Final calculations

1. Percent sand: \_\_\_\_\_\_\_\_
2. Percent salt: \_\_\_\_\_\_\_\_
3. Percent ammonium chloride: \_\_\_\_\_\_\_\_
4. Sum of percentages: \_\_\_\_\_\_\_\_

Actual percent sand to compare your answer: 50.0%

Actual percent salt to compare your answer: 25.0%

Actual percent ammonium chloride to compare your answer: 25.0%