Weighty Problems

After scallops are shucked aboard the vessel, they are put in cotton bags. Each bag weighs about 40 pounds. Scallops are sorted by size.   The size is described by the number of scallops it takes to make a pound. There are two ways this is done. 20/30 would mean there are between 20 and 30 scallops in a pound. U10 would mean there are fewer than 10 scallops in a pound. U10 are considered large scallops.

1. A bag of scallops weighs 22 pounds. If each scallop weighs 1.5 ounces, how many more scallops are needed for the bag to weigh 40 pounds?”

2. You are having a dinner party and plan to make a wonderful scallop dish. The recipe calls for a pound of scallops. When buying the scallops you notice that they are 20/30 scallops. If four people are coming for dinner, how many scallops will each person get?

3. You bought a pound of scallops at the fish market. There are 10 scallops in the bag. How much does each scallop weigh?

4. You are given a 40 pound bag of scallops. You decide to share them with 4 friends. Will you divide them by weight or by number? Write your answer and explain your reasoning. Given your method of dividing them up, what will each person receive?

5. If the size of the scallops is U10, what is maximum number of scallops that could be contained in a 40 pound bag?