Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Balancing Rations

**Using the Pearson’s Square**

Practice Worksheet

***Directions:*** Use the Pearson Square to solve each problem**. Round each calculation** to the nearest tenth. (ie: 1.36= 1.4)

1. Johnny wants to make 1 ton of a 16% protein ration using corn (10.9%) and soybean meal (41%). How much of each will he have to mix together?

\_\_\_\_\_\_\_\_\_\_\_Parts Soybean Meal=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Corn= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

2. Sam wants to make 1 ton of a 16% protein ration using alfalfa hay (18.7%) and oats (13.3%). How much of each will she have to mix together?

\_\_\_\_\_\_\_\_\_\_\_Parts Alfalfa=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Oats= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

3. Mike plans to mix a 1 ton ration that is 15% protein. He plans to use oats (13.3%) and alfalfa silage (17.8%). How much of each will he have to use to get his 9% protein ration?

\_\_\_\_\_\_\_\_\_\_\_Parts Oats=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Alfalfa silage= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

4. Dan is going to make 1 ton of a 23% ration. He is using oats (13.3%) and cottonseed meal (41%). How much of each will he have to use?

\_\_\_\_\_\_\_\_\_\_\_Parts Oats=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Cottonseed meal= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

5. Jay wants to make a ration that is 18% protein. He wants to use barley (13.5) and cottonseed meal (41%). How much of each will he have to use to make the 2,000 lb mix?

\_\_\_\_\_\_\_\_\_\_\_Parts barley=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Cottonseed meal= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

6. Susie wants to make one ton of a 16% ration using milo (8.8%) and meat and bone meal (55%). How much of each will Susie have to mix together?

\_\_\_\_\_\_\_\_\_\_\_Parts Milo=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Bone Scrap= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

7. Kody wants to make a ration that is 22% protein. He plans to use corn (10.9%) and dehydrated skimmed milk (35.8%). How much of each will he have to use to make 1000 pounds of this ration?

\_\_\_\_\_\_\_\_\_\_\_Parts Corn=\_\_\_\_\_\_\_\_\_\_pounds in a 1000 lb batch

\_\_\_\_\_\_\_\_\_\_\_Parts Dehydrated Skim Milk= \_\_\_\_\_\_\_\_\_\_pounds in a 1000 lb batch

8. Heather would like to make 100 lbs of a 20% protein ration. She plans to use sorghum (12.4%) and soybean oil meal (41%). How much of each will she have to use?

\_\_\_\_\_\_\_\_\_\_\_Parts Sorghum=\_\_\_\_\_\_\_\_\_\_pounds in a 100 lb batch

\_\_\_\_\_\_\_\_\_\_\_Parts Soybean Oil Meal= \_\_\_\_\_\_\_\_\_\_pounds in a 100 lb batch

9. Mic plans to make a 14% protein ration using brome hay (9.7%) and a supplement (36%) How much of each will he have to use to produce 500 pounds of mix?

\_\_\_\_\_\_\_\_\_\_\_Parts Brome Hay=\_\_\_\_\_\_\_\_\_\_pounds in a 500 lb batch

\_\_\_\_\_\_\_\_\_\_\_Parts Supplement= \_\_\_\_\_\_\_\_\_\_pounds in a 500 lb batch

10. Lucas plans to mix a ration that is 10% protein using prairie hay (5.8%) and a commercial supplement (36%) to feed his beef cows. How much prairie hay and how much supplement will he have to use to make 1 ton of this feed?

\_\_\_\_\_\_\_\_\_\_\_Parts Prairie Hay=\_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch

\_\_\_\_\_\_\_\_\_\_\_Parts Commercial Supplement= \_\_\_\_\_\_\_\_\_\_pounds in a 1 ton batch