

1. The only nutrient that contains Nitrogen is...
2. An example of a carbohydrate would be...
3. The complex carbohydrate that is used by plants to store energy in the roots and stems is...
4. The molecule that humans use to store carbohydrates in the body is...
5. An example of a monosaccharide would be...
6. Concentrates are those feedstuffs that contain lots of ...
7. Basal metabolism is...
8. A roughage is a feedstuff that has...
9. Proteins are polymers of ...
10. The fat molecule that is solid at room temperature is...
11. Carbohydrates yield _____ Calories per gram.
12. Why do ruminants have no **essential** amino acids?
13. Denaturation applies to which nutrient?
14. The enzyme that breaks down carbohydrate bonds is called...
15. A supplement is high in...
16. Give the deficiency symptoms of each of the following vit/min
 - a) Calcium
 - b) Folic Acid
 - c) Iodine
 - d) Iron
 - e) Manganese
 - f) Selenium
 - g) Vitamin A
 - h) Vitamin C
 - i) Vitamin E
 - j) Vitamin K
26. List the 4 energy needs of an animal in order from most critical to least.
30. Explain why the saturation of a fatty acid affects its state at room temperature.
31. Describe how a molecule's function can be determined by merely looking at the spelling of the word.
32. You have corn @ 10% CP and 88% TDN, SBM @ 40% CP and 68% TDN, and hay cubes @ 12% CP and 60% TDN. You want to make a feed rations that is 14% CP and 76% TDN. You will feed your horse 20 lbs per ration. How many lbs of each feedstuff will your horse get? SHOW ALL WORK!!
33. Your pigs need .8 lbs of protein each day to gain the desired weight. On Average the pigs will eat about 8 lbs of food per day. What percent protein do you need to feed in order to meet these needs? If you feed a ration of corn (10% CP) and SBM (40% CP), what proportion of ingredients will you feed you animals?
34.
$$\frac{60}{53} / \frac{\quad}{\quad} \times 100 = \quad \times 25 \text{ lbs} = \quad \text{lbs}$$
$$\frac{45}{\quad} / \frac{\quad}{\quad} \times 100 = \quad \times 25 \text{ lbs} = \quad \text{lbs}$$