

Homework 5

Healthy Animals

Curtis is concerned about the diet he is feeding his pet. A nutritionist has recommended that the pet's diet include at least 30 grams of protein and at least 16 grams of fat per day.

Curtis has two types of foods available—Food A and Food B. Each ounce of Food A supplies 2 grams of protein and 4 grams of fat, while each ounce of Food B supplies 6 grams of protein and 2 grams of fat. Curtis's pet should not eat a total of more than 12 ounces of food per day.

Curtis would like to vary the diet for his pet within these requirements, and so he needs to know what his options are.



1. Choose variables to represent the amount of each type of food Curtis will include in the daily diet. State clearly what the variables represent.
2. Use your variables to write inequalities to describe the constraints of the problem.
3. Choose one of your constraints. Draw a graph that shows which combinations of Food A and Food B satisfy that constraint. Be sure to label your axes and show their scales.

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