

Bart is concerned about the diet of his dog, Baxter. His veterinarian has recommended that Baxter should get at least 24 grams of protein and 15 grams of fat per day.

Dog Food

Healthy Dog Chow provides 3 grams of protein and 1 gram of fat per cup.

High-Performance Dog Food provides 2 grams of protein and 3 gram of fat per cup.

Dog Food

The veterinarian also recommended that Baxter should eat no more than 10 cups of food per day.

Dog Food

If Healthy Dog Chow costs 5¢ per cup, and High-Performance Dog Food costs 9¢ per cup, how many cups of each type should Bart use to minimize his costs but still give Baxter a healthy diet?

Dog Food

Margot has decided to create some paintings for a charity auction to benefit the local children's hospital. She will spend up to \$180 on supplies for these paintings.

Painting

The supplies needed for one oil painting costs \$15.

The supplies needed for one watercolor painting cost \$5.

Painting

She has enough time to complete 16 paintings.

She wants to do at least 3 watercolors and at least 8 oil paintings.

Painting

If the watercolors earn \$40 for the hospital and the oil paintings earn \$60, how many of each type should Margot create to maximize the amount that the hospital receives?

Painting

Because of safety concerns about two- and three-wheel dirt bikes, Apu has decided to create two bikes with four wheels: the Cruiser and the Explorer. He can get enough basic parts to produce up to 15 Cruisers and up to 12 Explorers per week.

Four Wheelers

Two parts must be special ordered—exhaust manifold clamps and suspension joints. Each Cruiser requires 5 clamps and 2 joints. Each Explorer requires 3 clamps and 6 joints.

Four Wheelers

Apu can order up to 81 clamps per week and up to 78 joints per week. It takes 2 hours to assemble a Cruiser and 3 hours to assemble an Explorer. His company has 3 employees who each work up to 15 hours per week.

Four Wheelers

How many Cruisers and Explorers should the company assemble to maximize profits, if each Cruiser earns a profit of \$50 and each Explorer earns a profit of \$100?

Four Wheelers



Level 1
5 Points



Level 2
10 Points



Level 3
15 Points

CLUES

Game Board