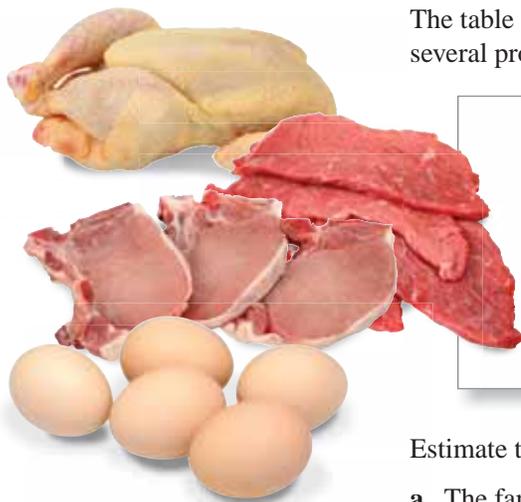


Using Unit Prices to Find Annual Savings

Because unit prices often differ by small amounts, people often ignore the differences and think, “It’s just a few cents different.” However, you can get a better idea of the differences when you compare them on the basis of annual consumption.

EXAMPLE 5 Finding the Annual Savings

The table shows the average annual consumption by Americans for several products.



Average Annual Consumption by Americans

Beef	61.2 lb	Chicken	58.8 lb	Pork	46.0 lb
Turkey	13.9 lb	Margarine	4.2 lb	Eggs	247
Whole milk	6.1 gal	Tea	8.0 gal	Butter	5.0 lb
Cheese	32.4 lb	Wheat flour	136.6 lb	Sugar	65.7 lb

Estimate the annual savings for a family of four people for the following.

- The family purchases all of its whole milk at a discount store in which the whole milk averages \$1.20 less per gallon than at a supermarket.
- The family purchases all of its meat at a discount store in which the meat averages \$0.85 less per pound than at a supermarket.

SOLUTION

- The total amount of whole milk consumed (per person) is 6.1 gallons.

For a family of 4, this amounts to

$$4(6.1) = 24.4 \text{ gallons.}$$

If the family was able to save \$1.20 per gallon, the annual savings would be

$$1.20(24.4) = \$29.28.$$

- The total amount of meat consumed (per person) is

$$61.2 + 58.8 + 46.0 + 13.9 = 179.9 \text{ pounds.}$$

For a family of 4, this amounts to

$$4(179.9) = 719.6 \text{ pounds.}$$

If the family was able to save \$0.85 per pound, the annual savings would be

$$0.85(719.6) = \$611.66.$$

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Estimate the annual savings for a family of 4 people when the family purchases all of its wheat flour and sugar at a discount store at an average savings of \$0.67 per pound.