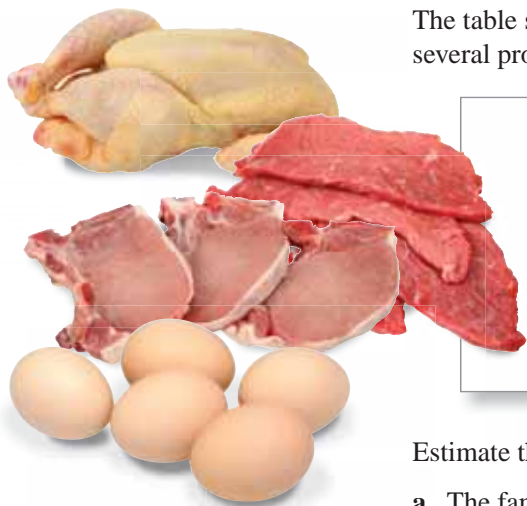


## Using Unit Prices to Find Annual Savings

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  $0.85(719.6) = \$611.66$ .

### ✓ Checkpoint

Help at [Math.andYOU.com](http://Math.andYOU.com)

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.