Unit Pricing

Vocab:

Unit Pricing - the cost per unit that you buy.
(ex. $ per gal)

LESSON 6.3

EXAMPLE

Shane Ladd purchased a 64-ounce container of orange juice for $3.49, a 2-liter bottle of bleach for $1.99, and a dozen ears of sweet corn for $3.50. What is the unit price of each item to the nearest tenth of a cent?

OJ → $\frac{3.49}{64} = \$0.054$ per oz

Bleach → $\frac{1.99}{2} = \$0.995$ per liter

Corn → $\frac{3.50}{12} = \$0.292$ per ear

LESSON 6.3

Find the unit price to the nearest tenth of a cent. Check your answers in the back of the book.

1. A 4.5-pound chicken costs $5.25.

$\frac{5.25}{4.5} = \$1.167$ per lb

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2. A 20-count package of plastic storage bags costs $2.29.

$\frac{2.29}{20} = \$0.115$ per bag

Comparison Shopping

Vocab:

Comparison Shopping - looking at unit prices to get the best deal

LESSON 6.4

EXAMPLE 1

Tolliver's Groceries sells ranch salad dressing in three sizes. The price of a 16-ounce bottle is \$3.49, of a 20-ounce bottle is \$4.69, and of a 36-ounce bottle is \$6.19. Based on price alone, which package is the best buy?

$\frac{3.49}{16} = 0.218$

$\frac{4.69}{20} = 0.235$

$\frac{6.19}{36} = 0.172$ 36-oz

LESSON 6.4

Find the better buy. Check your answers in the back of the book.

1. Facial tissues: 75-count box for $1.49; 184-count box for $2.89.

$\frac{1.49}{75} = 0.020$

$\frac{2.89}{184} = 0.016$

LESSON 6.4

Find the better buy. Check your answers in the back of the book.

2. Granola cereal: 14-ounce box for $2.50; 20-ounce box for $3.58.

$\frac{2.50}{14} = 0.179$ 0.1786 14 oz

$\frac{3.58}{20} = 0.179$

LESSON 6.4

EXAMPLE 2 Algebra

Justin Sanders computed the unit price of a 2-liter bottle of a soft drink and found it to be \$0.005 more per ounce than the unit price on a ~~12-~~ pack of 12-ounce cans of the same soft drink. If the 2-liter bottle costs \$1.19 less than the cost of the 12-pack of 12-ounce cans, find the cost of a 2-liter bottle and the cost of the 12-pack of 12-ounce cans. (Note that 2 liters are equivalent to 67.6 fluid ounces.)

144 oz

$\frac{\text{u.p. 2L}}{67.6} = \frac{\text{u.p. 12pack} + 0.005}{144}$

$\frac{x}{67.6} = \frac{x + 1.19}{144} + \frac{0.005 \cdot 144}{144}$

$\frac{x}{67.6} = \frac{x + 1.19 + 0.72}{144}$

$144x = 67.6(x + 1.91)$

$144x = 67.6x + 129.116$

$76.4x = 129.116$

$x = 1.69$ 2L

$1.69 + 1.19$

\$2.88 per 2 pack

LESSON 6.4

Complete the problem. Check your answer in the back of the book.

3. The unit price on a 100-pound container of swimming pool chlorine is \$0.06 per pound less than the unit price on a 75-pound container. If the 100-pound container costs \$55.50 more than the 75-pound container, find the cost of each.

up 100lb = up 75lb − 0.06

$$\frac{x+55.50}{100} = \frac{x}{75} - \frac{0.06 \cdot 75}{75}$$

$$\frac{x+55.50}{100} = \frac{x-4.5}{75}$$

$$75(x+55.50) = 100(x-4.5)$$

$$75x + 4162.50 = 100x - 450$$

$$-75x \quad +450 \qquad -75x \quad +450$$

$$\frac{4612.50}{25} = \frac{25x}{25}$$

$x = \$184.50$ 75-lb

$\$240$ 100-lb