State Indicator/Competency:
1. Calculate expected values and use them to solve problems.

Instructional Objective(s):
8.3a Best Buys
1. Students will be able to find and compare unit costs with 80% accuracy.
2. Students will be able to calculate savings with 80% accuracy.

Instructions:
1. Read through lesson and examples.
2. If able, watch suggested videos for extra instruction.
3. Complete the practice problems. Check your answers to see how you're doing.
4. Complete attached worksheet. Show your work. Worksheet will be collected and graded.
5. Questions? Contact me by email. butcherna@mwood.cc

Activities:

Unit Price Comparisons

Many items are packaged in ways that make it difficult to compare them easily with competing brands. For example, one product may be packaged in an 8-oz jar while another brand uses a 12-oz jar.

To help shoppers compare the costs of products, many stores post unit prices on their shelves. The **unit price** is the price of one item or one measure of the item. It may be an ounce, a pound, a quart, a dozen, a hundred feet, or some other measure. If unit prices are not posted, you have to calculate them to compare the costs.

Examples:
1. Gelo toothpaste costs $1.28 for a 6-oz tube. GloWite toothpaste costs $1.99 for a 4.6-oz tube. Which brand costs more per ounce? How much more?

Each are listed in ounces. Divide the cost by the number of ounces to find the unit price.

Gelo Toothpaste : 1.28 ÷ 6 = $0.213 per ounce

GloWhite Toothpaste: 1.99 ÷ 4.6 = $0.433 per ounce

Find the Difference by subtracting: .433-.213 = $0.22   (GloWhite is $.22 more per ounce)

2. A store sells an 18-oz. box of National Mills corn flakes for $3.29 and a 24-oz. box of Keller's corn flakes for $3.99. Which box sells for less per ounce? How much less per ounce?

National Mills Corn Flakes: 3.29 ÷ 18 = $0.1827 per ounce

Keller's Corn Flakes: 3.99 ÷ 24 = $0.1662 per ounce

Find the Difference by subtracting: .1827-.1662 = $0.02 (Keller's is $0.02 less per ounce)

Calculating Savings

To save money, you should know how to calculate the amount you can save by buying in large amounts or at discount stores. Many of the items you buy come in different sizes and at different prices.

Example:

3. A single tube of Colgate toothpaste for sensitive teeth costs $4.48. A package of 3 tubes costs $13.38. How much can you save by buying the package of three rather than buying 1 tube at a time?

    Find the cost if you bought individually   3 x $4.48 = $13.44

    Find the Savings by subtracting: $13.44 - $13.38 = $.06

    You can save $0.06 by buying a package of three

4. A 53.7 square foot roll of Country paper towels costs $1.49. An 80.6 square foot roll of the same paper towels costs $1.89 on sale. Which is less expensive per square foot, the small or large roll?

Find the cost of each per square foot by dividing the cost by the number of square feet.

    Small roll   1.49 ÷ 53.7 = $0.028/sq. ft.

    Large roll   1.89 ÷ 80.6 = $0.023/sq. ft.   Larger is less expensive by $0.005 per square foot

Practice:
Complete the following and check your answers.

1. You can buy a package of four D batteries for $5.99 or a package of two D batteries for $3.49. Which package costs less per battery? How much less per battery? (Answer - $0.25 less in first package)

2. One radial tire sells for $89.99. A set of 4 is priced at $305.96. How much would you save if you bought a set of 4 now instead of one tire at a time over the next few months? (Answer - $50 savings)

Assignment: Complete the attached Worksheet 8.3a (10pts)

8.3a – Unit Costs   Name:_____

1. Find the unit price of each.
   a) 3 rolls of film for $12.99   b)   5 cans of tuna for $2.19   c)   5 suit hangers for $2.29

2. One all-terrain tire sells for $172.99. A set of 4 is priced at $599.99. How much would you save if you bought a set of 4 now instead of one tire at a time over the next few months?

3. A digital camera is priced at $369.89 at a department store. The same camera can be bought for $310.88 plus $12.50 shipping and handling over the Internet. How much would you save by buying the camera over the Internet?

4. A 13-oz. dispenser of Coral moisturizing lotion sells for $7.29. A 12-oz. dispenser of Dino moisturizing lotion sells for $6.99. Which is less expensive? How much less expensive per ounce?

5. You can buy a bottle of 250 Vitamin C pills for $11.99 or a bottle of 100 Vitamin C pills of a competing brand for $5.99. Which cost less, the larger or the smaller bottle? How much less per pill?

6. Tricia Lanley can buy DVD movies at the regular price of $14.95 each, or at a sale price of 5 for $66.95. How much would she save by buying five movies now instead of one at a time?

7. Do some comparison shopping of your own. Look online to find the prices of the following items at 3 different stores. You can use Amazon, Wal-Mart, Giant Eagle, Target, Meijers or another store of your choice. Include the store, total cost, size, and then find the cost per unit.

ITEM & Store	Total Cost	Size	Cost Per Unit
Men's Athletic Socks			
Store 1:			
Store 2:			
Store 3:			
Pencils			
Store 1:			
Store 2:			
Store 3:			
Toilet Paper			
Store 1:			
Store 2:			
Store 3:			