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

Instructional Objective(s):
8.3b Best Buys
      1. Students will be able to compare the cost of rental options with 80% accuracy.
      2. Students will be able to compare the cost of renting vs. buying 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:

Rental Options

You can rent items you do not use often or only need for a short amount of time. For example, since a homeowner is not likely to refinish the floors in a home very often, renting a floor sander instead of buying it makes sense.

Rental companies offer different rental rates for different time periods, such as hourly, daily, weekly, and monthly. To determine the best rental option, you should know how long you will need the item and then find the most economical rate.

Examples:
1. A floor sander can be rented for $7 an hour or $40 a full day. If you estimate that it will take you 6 hours to sand the floors in two rooms, which rate would be the least expensive?

   Find the cost of renting per hour: $7 x 6 = $42

   Subtract to find difference: 42 – 40 = $2

   You will save $2 by renting the whole day

2. Cary wants to rent a large screen video projection system to see games 3, 4, and 5 of the World Series. The projection system rental price by the day is $130 and by the week, it is $600. If the three games are played over 4 days, which rental rate will be the least expensive for him?

   Cost of a daily rental: $130 x 4 days = $520

   Subtract to find difference: $600 - $520 = $80

   Dailey Rental rate is cheaper by $80

Rent or Buy

If you need something on a regular basis, it may be less expensive to buy than rent. To make this decision, you need to:
1) Calculate the annual cost of renting the equipment.
2) Calculate how many years it would take for the rental price to equal or exceed the purchase price.

Examples:
3. You rent a rug-cleaning machine four days a year at a cost of $25 a day. You see a rug cleaner on sale for $225. How many years would it take for the rental price to cover the purchase price?

        4 days a year at $25/day: 4 x 25 = $100

        Cost of buying divided by cost of renting in a year: $225/100 = 2.25

        It would take 2.25 years to cover purchase price

4. A backpack leaf blower rents for $25 a day. The same leaf blower sells new for $169.99. Meka Jackson thinks she will use the leaf blower for 5 days a year to clean her garage of dust and dirt and her yard of leaves. How many days of renting, to the nearest tenth of a day, will it take for the rental cost to equal or exceed the purchase price?

        Cost of item divided by cost her day: 169.99 ÷25 = 6.79
        She would cover the cost of buying a backpack leave blower in 6.8 days

Practice: Complete the following; check your answers.

1. Jill Sun plans to paint her garage and estimates that it will take about 5 hours to do it with a paint sprayer. She can rent a sprayer at an hourly rate of $18, at a half-day (8 hours) rate of $56, or a full-day (24 hours) rate of $80. Which is the least expensive rental rate for the task?   (Half-Day rate by $34)

2. Joe Fiorelli rents a 40-foot extension ladder for a total of 4 days each year to clean the windows in his home in the spring and fall. The daily rental for the ladder is $23.99. The same ladder costs $349.99 new. How many years, to the nearest tenth of a year, would it take for the rental charges to equal or exceed the cost of buying the ladder?   (3.6 years to cover cost of buying verses renting)

Assignment: Complete attached 8.3b worksheet (10pts)

8.3b worksheet – Rent vs Own   Name:_____

1. Randy Wilson tills his garden once a year. He rents a garden tiller for one day at $57 per day to do the job. He pays 5% tax on the rental price and uses 4 gallons of gas at $1.65 per gallon.

     a) What is his total cost for using the tiller?

     b) If a similar tiller costs $346.99 including tax, for how many whole days could Randy rent it before renting would cost more than buying?

2. You plan to power wash your two story house. You think it will take 4 hours to complete. You can rent a power washer for $18 an hour or for $75 for the entire day.

     a) Should you rent it by the hour or by the day?

     b) You can purchase the same pressure washer for $312. How many hours, to the nearest tenth, would it take for the rental charges to equal or exceed the cost of buying the pressure washer

3. A notebook computer can be rented for $105.95 a week or $29.89 a day. You need the computer for 4 days.

     a) At which rate, daily or weekly, would it be cheaper to rent?

     b) How much would you save by renting it at that rate?

     c) If a similar computer costs $1,997 to buy, for how many full weeks could you rent the computer at the weekly rate before renting would cost more than buying?

4. A friend sees an ad that would allow him to rent a large screen TV for $20 a week, for 152 weeks. At the end of the rental period, he would own the TV. He could buy the same TV at the store for $2,000. He thinks the rent-to-own price is a good buy. You don't. What are two comparisons between renting and buying the TV that you can make to support your position?

5. If you're able, go to HomeDepot.com and search Tool Rental.

    Pick a tool on their website that you can rent. Find the price per day along with any additional costs. Find the price to purchase the same tool. Given the tool you find, would you prefer to buy or rent? Why?