

Your name _____

Assignment # 9 Points 15

Business Math Off-site Instruction Packet Cover Page (Periods 5, 7,8)

Students, You can contact me with questions or just to say hi.

Email: LEWISJU@mwood.cc (Put your name in the subject line so I know who you are!!). I will be checking mail multiple times each day.

Topic of this assignment: Best Buys (Continued)

What you need to know: We're going to compare renting an item to buying the item.

What you need to do: Read notes. Study Examples. Complete classwork

BSN Math: Guided Notes

Name _____

Mrs. Lewis

8.3b Best BuysInstructional 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.

~ 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.

Example:

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?

$$6 \text{ hrs} \times \$7$$

\$42 by the
hour

or

\$40 all 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?

Daily Rental

$$4 \text{ days} \times \$130$$

\$520



or

600 all week

~ 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 item.
- 2) Calculate how many years it would take for rental price to equal purchase price.

Example:

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. Do you think you should buy the rug cleaner or continue to rent?

$$4 \text{ days} \times 25 \\ \$100 \text{ per} \\ \text{year to} \\ \text{rent}$$

$$225 \div 100 \\ \text{cost to} \quad \text{yearly} \\ \text{buy} \quad \text{cost to} \\ \quad \quad \text{rent} \\ 2.25 \text{ years}$$

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?

$$169.99 \div 25 = 6.8 \text{ days} \\ \text{cost to} \quad \text{rental} \\ \text{buy} \quad \text{for 1} \\ \quad \quad \text{day}$$

Review:

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

$$\begin{array}{ccc} \text{hourly} & \text{or } \begin{array}{c} 8 \text{ hrs} \\ \frac{1}{2} \text{ day} \end{array} & \text{or full day} \\ 5 \times 18 & \$56 & \$80 \\ \$90 & & \\ & \uparrow & \\ & \text{Best} & \end{array}$$

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?

$$4 \text{ days} \times 23.99 \\ \$95.96 / \text{yr.}$$

$$\begin{array}{ccc} 349.99 & \div & 95.96 & = & 3.65 \text{ years} \\ \text{cost to} & & \text{cost to} & & \\ \text{buy} & & \text{rent (yr)} & & \end{array}$$

Classwork:

you're up!

1. You rent a power washer 4 days a year at a cost of \$45 a day. You see a power washer on sale for \$329. Do you think you should buy the power washer or continue to rent?
2. A backpack leaf blower rents for \$30 a day. The same leaf blower sells new for \$269.99. Meka Jackson thinks she will use the leaf blower for 7 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?
3. Jan 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 \$22, at a half-day (8 hours) rate of \$70, or a full-day (24 hours) rate of \$95. Which is the least expensive rental rate for the task?
4. Joe rents a 60-foot extension ladder for a total of 6 days each year to clean the windows in his home in the spring and fall. The daily rental for the ladder is \$28. The same ladder costs \$380 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?