

Your name _____

Assignment # 4 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: Average Monthly Expenses

What you need to know: We are going to calculate monthly expenses & then calculate AVERAGE monthly Expenses.

What you need to do: Read the notes. Study & understand the examples. Complete the classwork.

BSN Math: Guided Notes

Name _____

Mrs. Lewis

8.1 Average Monthly Expenses

Instructional Objective(s):

8.1 Average Monthly Expenses

1. Students will be able to calculate total expenses with 80% accuracy.
2. Students will be able to calculate average monthly expenses with 80% accuracy.

Start – Up

On what kind of purchases do you spend the money you earn or receive? Make a list of the things you do with your money in a typical week. In your list include how often you spend money on each item, where you buy it from, and an estimate of how much you spend.

~Tracking Expenses

Many people have trouble managing their money because they do not keep records of how the money is spent. Tracking expenses is the first step in managing your money. To get a snapshot of where you spend your money, keep a log of every penny you spend for a month.

Example:

1. Amy Tracer is a student who is tracking her expenses for a month. In the first week of the month, she has spent the following amounts.

Date	Explanation	Amount
6/1	Lunch	\$7.86
6/1	Drink	\$2
6/2	Drink	\$2
6/3	Music CD	\$15.36
6/3	GAS	\$35
6/3	Drink	\$2
6/4	Drink	\$2
6/5	Drink	\$2
6/6	Drink	\$2
6/7	Drink	\$2
6/7	Movie / Food	\$15

How much money has Amy spent in one week at the drink machine? If she spends this much every week, how much will she have spent in a year at the drink machine?

$$7 \text{ drinks} \times \$2 \text{ each} = \$14/\text{wk}$$

$$\$14 \text{ per week} \times 52 \text{ wks} = \$728 \text{ per yr.}$$

2. If Amy buys gasoline once a week and spends an average of \$35, how much will she spend in a year on gasoline?

$$\$35 \times 52 \text{ weeks} = \$1,820 \text{ per year}$$

~ Average Monthly Expenses

With several months' records of tracked expenses, you can determine categories in which your expenses can be grouped. Amy's categories might be food, drink, gas, entertainment, and miscellaneous. A person with housing expenses might have categories of housing, utilities, food, entertainment or other.

You can find average monthly expenses for each category or for each month by finding the sum of the monthly expenses and dividing by the number of months.

Formula:
$$\text{Average Monthly expenses} = \frac{\text{Total expenses}}{\text{Number of months}}$$

Example:

3. Consuelo Valdez has tracked her expenses for 3 months. She grouped her expenses into categories and made a table to show how much she spent each month. What is the average amount that Consuelo spends each month?

Average
Add the
Totals
(5574.55)
÷
3 months
1858.18

Category	Jan	Feb	Mar
Housing	\$550	\$550	\$550
Utilities	\$175.18	\$180.23	\$145.16
Insurance	\$540	\$280	\$280
Transportation	\$120.67	\$340.02	\$105.93
Food	\$240.26	\$225.14	\$238.29
Clothing	\$55.36	\$0	\$122.18
Entertainment	\$36.29	\$122.18	\$75.82
Savings	\$120	\$120	\$120
Health Care	\$0	\$105	\$22.18
Miscellaneous	\$75.46	\$22.38	\$56.82
Total	1913.22	1944.95	1716.38

4. What is Consuelo's average monthly expense for food?

$$240.26 + 225.14 + 238.29$$

$$703.69 \div 3 = \boxed{\$234.56}$$

Many expenses are paid on a monthly basis, such as rent, utilities, and loan payments. However, there are other payments that are paid on different schedules.

Insurance premiums, property taxes, and car registration fees are examples of payments that may be made on an annual basis. Tracking expenses for just a few months does not give an accurate picture of these expenses. If you save money each month to make an annual payment when it is due, the annual expense is averaged over the 12 months of the year.

Example:

5. Vince's homeowners insurance is due each year in December. His annual premium is \$1,050. How much should he save each month to pay the annual premium in December?

$$\$1050 \div 12 \text{ months}$$

$$\$87.50$$

6. Vince's auto insurance premium is \$850/year. What amount should he save each month for his insurance?

$$\$850 \div 12 \text{ months}$$

$$\$70.83$$

Review:

1. How much money did Amy spend in the first week of June?

page 1 Example

2. What is Consuelo's average monthly expense for health care?

page 3 Example

3. Vince's life insurance policy has a semi-annual premium of \$420. What is the average monthly expense for his life insurance?

Semi Annual - 2x per year
or every six months
 $420 \div 6 \text{ months} = \$70/\text{month}$

Classwork:

Complete!

1. Britton is tracking his expenses for a month. In the first week of the month, he has spent the following amounts. How much money has Britton spent in one week on lunch? If he spends this much every week, how much will he have spent in a year for lunch?

2. If Britton buys gasoline once a week and spends an average of \$24 each time, how much will he spend in a year on gasoline?

3. How much money did Britton spend in the first week in May?

Date	Explanation	Amount
5/1	Lunch	\$6.85
5/1	Dinner	\$8.75
5/2	Gasoline for auto	\$24.00
5/2	Lunch	\$6.85
5/3	Music downloads	\$4.95
5/3	Lunch	\$6.85
5/4	Lunch	\$6.85
5/5	Lunch	\$6.85
5/5	Dinner	\$8.50
5/6	Movies	\$9.75
5/7	Putt-putt	\$9.25

4. Mabel tracked her expenses for 3 months. She grouped her expenses into categories and made a table to show how much she spent each month. What was the average amount that Mabel spent each month?

5. What was Mabel's average monthly expense for entertainment?

6. What was Mabel's average monthly expense for transportation?

Category	June	July	August
Housing	\$600	\$600	\$600
Utilities	\$300.48	\$315.45	\$319.84
Insurance	\$104.87	\$89.65	\$89.65
Transportation	\$80.25	\$85.67	\$98.24
Food	\$150.47	\$210.31	\$175.97
Clothing	\$67.49	\$25.59	\$47.46
Entertainment	\$64.25	\$27.69	\$45.50
Savings	\$100	\$100	\$100
Health Care	\$15	\$35.14	\$15
Miscellaneous	\$34.45	\$56.26	\$71.56