Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Unit 6 Lesson 1: Formula Building and Basic Budgeting***

**Be prepared to share your excel spreadsheet with the class by projecting it using the apple TV.**

**Problem 1: Heart Attack Wayne (10 minutes)**

A man named Wayne recovering from a heart attack is encouraged to walk each day in order to lead a healthier lifestyle. His **family doctor** encourages him to walk 20 steps on the first day, 30 steps on the second day, 45 steps on the third day, etc. His **cardiologist** advises him to walk 1250 steps on the first day, 2250 steps on the second day, 3250 steps on the third day, etc. Wayne must analyze and decide which program he is going to follow for the next three weeks.

* Using Mircosoft Excel/Google Sheets create a spreadsheet with the following directions.

 Create the following labels

-Label cell A1 “Day Number”

 -Label cell B1 “Daily Steps FD”

 -Label cell C1 “Total Steps FD”

 -Label cell D1 “ Daily Steps C”

 -Label cell E1 “Total Steps C”

* In cells A2 – A22 give the day numbers 1 – 21. You will be analyzing the total steps walked in the first 3 weeks.
* In cells B2 – B22 use a formula that shows the total steps that are taken on a particular day based on the family doctors plan. (Example- cell B13 should give the total steps taken on the twelfth day)
* In cell B23 use the SUM formula to find the total number of steps Wayne will have taken at the end of the three week period based on the family doctors plan. Highlight this value **YELLOW**.
* In cells C2 – C22 use a formula that shows the total cumulative steps that have been taken up to that day based on the family doctors plan. (Example – cell C13 should give the total steps that have been taken on days 1 – 12 combined)
* In cells D2 – D22 use a formula that shows the total steps that are taken on a particular day based on the cardiologist plan. (Example- cell D13 should give the total steps taken on the twelfth day)
* In cell D23 use the SUM formula to find the total number of steps Wayne will have taken at the end of the three week period based on the cardiologist plan. Highlight this value **ORANGE**.
* In cells E2 – E22 use a formula that shows the total cumulative steps that have been taken up to that day based on the cardiologist plan. (Example – cell E13 should give the total steps that have been taken on days 1 – 12 combined)
* Analyze the daily steps that Wayne takes on both plans. Highlight the Row **RED** where the family doctor’s plan begins to produce more total steps than the cardiologists’ plan.

**Problem 2: Time to go to Work (30 minutes completed together as a class)**

**Step One:** Open a new tab in the Microsoft excel/Google sheets document you used for Problem 1.

**Step Two:** Name Sheet 1 “Darius” and color the tab yellow.

**Step Three:** Read the following information about Darius.

Darius is a high school junior who works part time at Ye Ole Fashion Ice Cream Shop. He makes $10.68 each hour and works exactly 20 hours each week. Darius has several expenses each month. He has 14.7% of his paycheck taken out for taxes (both federal and state). After paying taxes he gets his paycheck every week. He sets aside 15% of each paycheck to put in a savings account for college. His parents bought him a car to get himself to and from work, but he is responsible for paying 25% of his car insurance. Car insurance cost his family $120 a month. He is also responsible for paying for his own lunch at school. He sets aside $15 out of his check each week for lunch.

**Step Four:** Build an excel spreadsheet to analyze the money that Darius’ budget for one month (4 weeks). Make sure your sheet uses formulas so that any change in Darius’s salary, number of hours he works, car insurance, lunch money, savings account percentage, etc. it will still allow you to analyze his budget. Be sure you can quickly find how much money Darius brings in each week, pays out each week, saves each week, and has left each week.

**Step Five:** Use your excel sheet to answer the following questions.

1. How much money does Darius have left after he has taken care of all of his expenses (taxes, savings, car insurance, lunch) in the following weeks.

Week 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Week 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Why does Darius have more money in Weeks 2 – 4 than he does in week 1 left over?

3. How much money does Darius have in his savings account at the end of 4 weeks?

4. Darius is invited to go on a ski trip with a group of friends. The cost of the ski trip is $550 per person. Darius is not allowed to touch the money in his savings account because that is being set aside for college. However, he hasn’t spent any of his earned money other than paying taxes, car insurance, and lunch money. Does he have enough left over to go on the ski trip? Explain in complete sentences.

\*5. If Darius is paid $13.60 an hour instead of $10.68 an hour, how much money will Darius be saving in week 3?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*6. If Darius sets aside 30% for savings instead of 15%, how much money will he have left after he pays all of his expenses (taxes, car insurance, lunch, and savings) in the following weeks?

Week 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Week 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*7. Could he afford go on the ski trip discussed in problem number 4 if he only saved 5% instead of 15%? Explain in complete sentences.

\*8. What percentage of his check should Darius set aside if he wants to save exactly $200 a month?

\*9. Darius is going to ask for a raise. He would like to see his paychecks (after taxes have been taken out) rise to $200. What wage should Darius request?