

6th Grade Assignment – Week #20

Note: It may be best during the group meetings to have your child looking at the graphs on one computer, and using another computer for the Zoom meeting.

Individual Work:

- *Presentations and Daily Reading.* I am still hoping that you are doing this. See last week's assignment for details.
- *Main Lesson Book Pages:* Here are some possible ideas for main lesson book pages:
 - Title: "How I spend my day".
 - For a typical day for you, record the number of hours you spend with each activity. Possible categories are: Sleep, preparing meals, transportation (and getting places), time spent in school, time spent doing school-related work, doing chores, exercise/sports, music/hobbies, and "other".
 - Put all of this data in a table, where the columns are labeled as: activity, number of hours, percent of the day.
 - Make a pie chart from the data. Make sure it is very nicely done – use a compass to draw the circle, and think carefully about how to make it so that the size of the angle in each pie piece corresponds to the percentage of the activity.
 - Have a conversation with your child about your philosophy and practice of saving and giving/donating. What do you think about the idea that your income (after taxes) should be divided according these percentages: 80% for expenses, 10% savings/investment, 10% charitable giving? Perhaps have your child create a main lesson book page around this topic.
 - Title: "Business Formulas". Create a page that states each of the following formulas, explains what the formula does, and then gives an example. (This was covered in Lecture #2 this week.)
 - Rate of Pay
 - Price after tax
 - Price after discount
 - Create a main lesson book page based upon any of the topics and conversations arising out of the group discussions and/or lectures.
 - Create a main lesson book page summarizing any of the articles you have read (see last week's assignment).

Group Assignments:

For Tuesday:

- *Graph Analysis.*

- 1) Look at the graph below, titled “Median Household Income in the US”, and then answer and discuss these questions:
 - a) What was the median household income in 1988?
 - b) What was the median household income in 2018?
 - c) The median household income was more than twice as much in 2018 than in 1988. Does this mean that people were more than twice as wealthy in 2018 as compared to 1988? Why?
 - d) What do you think the term (on the vertical axis) “current dollars” means? (You may need an adult to help explain what this is, and what “inflation” is.)
- 2) Look at the graph below, titled “Total Trade vs. GDP in the US”. Discuss what you can learn by studying it.

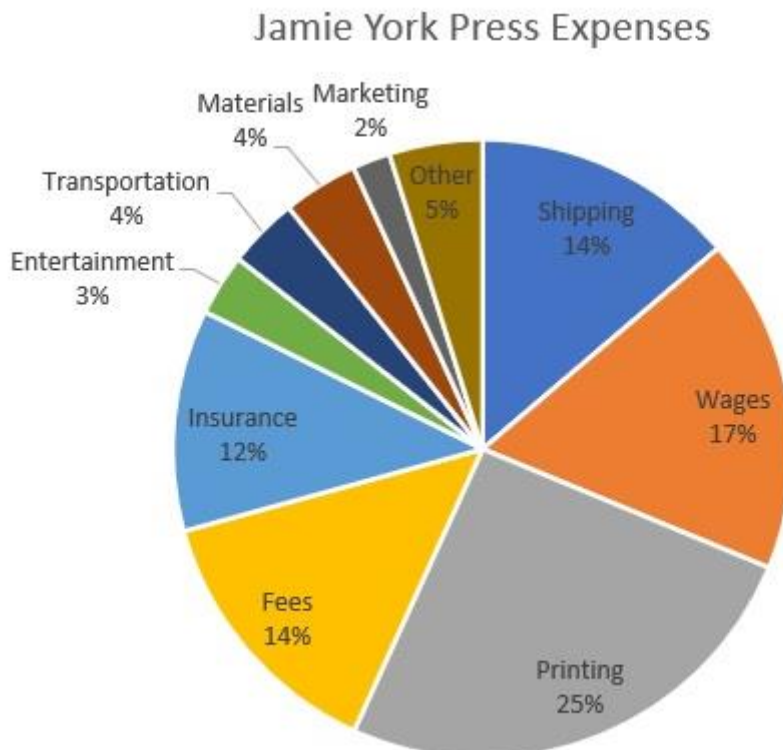
- *Business Calculations.*

- 3) Rate of Pay. Work together to answer these questions:
 - a) How much does Rob earn in 70 hours of work if he earns \$24 per hour?
 - b) Anita is paid at a rate of \$15 per hour. How much will she earn in 4 weeks, if she works for 40 hours each week?
 - c) In general, how can you calculate the amount of pay (P), if you know the hourly rate (R) and the number of hours (H) worked? How can you express this as a formula?
- 4) Price After Tax. Work together to answer these questions:
 - a) Josh bought a pair of shoes for \$60. What is his final bill, if he also has to pay 8% tax?
 - b) Martha bought a car for \$20,000. What is her final cost if she also has to pay 12% tax?
 - c) In general, how can you calculate the price after tax (F, the final cost), if you know the base amount (B), and the tax rate (R)? How can you express this as a formula?
- 5) Price After Discount. Work together to answer these questions:
 - a) A shirt in a store is normally marked at \$35. What is the discounted price if there is a 40% discount?
 - b) A pint of ice cream normally costs \$5. What is the discounted price if there is a 10% discount?
 - c) In general, how can you calculate the discounted price (F, the final cost), if you know the base amount (B), and discount rate (R)? How can you express this as a formula?

Group Assignments:

For Thursday:

- Note for Parent: Try to not have the 6th graders in the group look at the below pie chart until after they answer the first question (#1a).
- *Graph Analysis.*
 - 1) Jamie York has a book publishing business.
 - a) What do you think the major expenses of his business are?
 - b) Now look at the below pie chart. Do you understand most of the categories? Are there any surprises?
 - c) If Jamie York Press's total expenses are approximately \$72,000 per year. Then what are his annual costs for printing? for transportation? for shipping?
 - 2) Stock Prices. Look at the two stock market graphs (below) for Ford and for Amazon.
 - a) What does the graph say about the stock price for Ford? Be specific!
 - b) What does the graph say about the stock price for Amazon? Be specific!
 - c) What are some of the reasons that these two graphs are so different?
- *Business Calculations.* Use formulas for each of these problems:
 - 3) What does Jose earn in a 40-hour work week if he is paid \$30 per hour?
 - 4) If a restaurant bill is \$100, what is the final price if there is 7.5% tax?
 - 5) If a jacket is normally marked at \$250, what is the discounted price if there is a 65% off sale?



Amazon
Stock Prices



Ford Motor Company
Stock Prices



