

Name:

IN THIS LESSON, YOU WILL:

- Calculate a weighted average of a data set
- Calculate credit utilization as a ratio
- Understand the factors that contribute to your credit score
- Explore how various common occurrences affect your credit score
- Learn other methods of determining your credit score besides FICO scores



INTRO

ARCADE: Credit Clash

Building a good credit score is an important task to setting yourself up for a positive financial future. But just what does it take to improve your score? Explore credit building steps by playing Credit Clash. Then, answer the questions.

1. **What was your score at the end? Did you win or lose?**
2. **What actions improved your credit score?**
3. **What actions hurt your credit score?**
4. **What perks or advantages came with increasing your credit score throughout the game?**



LEARN IT

VIDEO: What is a Credit Score?

Now that you've tried your hand at building your credit in the game, you'll want to learn how to do it in real life. Watch this video on what a FICO credit score is and how they're calculated. Use the information to answer the questions.

1. **What is the scale for minimum to maximum possible FICO credit score?**

2. Do you ideally want to have a HIGH credit score or LOW?
 3. Payment History and Amounts Owed, together, comprise 65% of your score. Why do you think it's so high?
 4. Does the method for calculating credit scores seem fair to you? Why or why not?
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ARTICLE: [How Does a Late Payment Affect Your Credit?](#)

The largest factor of your credit score is on-time payments, and even ONE late payment can have a noticeable effect on your score. Read this article, then answer the questions

1. What is the “grace period” for how long creditors are required to wait before reporting your payment as a late?
 2. How long can late payment stay on your credit report?
 3. Why is it a good idea to check your credit score regularly?
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INFOGRAPHIC: [Late Payments](#)

Even though they're the most important factor in a credit score, late payments are still a very common occurrence for borrowers in the U.S. This survey breaks down some of the statistics on late payments in the U.S. Use this infographic to answer the questions.

1. TRUE or FALSE: Consumers generally feel negative about credit card companies and card ownership?
2. What are the top two reasons people miss credit card payments? Are these reasons similar or different, and what do you think this says about the types of credit card users?
3. What similarities and differences do you see between how men and women think about and react to missed payments?
4. What similarities and differences do you see between how people of different age groups think about and react to missed payments?

5. What is your main takeaway after going through the statistics in this infographic?

ARTICLE: [How to Calculate Your Credit Utilization Ratio](#)

Credit Usage, also called utilization or utilization ratio, is another main component of your credit score. It is defined as the amount you owe divided by your credit limit. Read the introductory description of credit utilization, and then answer the questions.

- 1. If you have one credit card with a \$300 balance and a \$1000 limit, what would your utilization be?**
- 2. If you increase your credit limit, what would you expect to happen to your utilization? Explain.**
- 3. Your utilization takes into account ALL of your cards, not just one. What then is the utilization of a person with the following cards and balances:**

Balance	Credit Limit
\$300	\$4000
\$100	\$4500
\$200	\$500

- 4. What are TWO ways you can decrease your utilization?**
 - 5. First, read [this story](#) about the Guinness world record card holder.**
 - a. What would you predict about his utilization rate and why?
 - b. If Walter carried a monthly balance of \$100,000, what would his utilization be?
 - c. Does that mean it is a good idea for him to carry a \$100,000 balance? Why or why not?
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ACTIVITY: [MOVE: Up and Down with Credit Scores](#)

Now that you know the main factors, let's see how various common things can impact your credit score. Follow your teacher's directions to complete this activity.

EDPUZZLE: No Credit Score, No Problem

Your FICO score is just one of many different credit scoring models that can describe your credit history. Some newer models are emerging that offer a different perspective than FICO scores. Watch this Edpuzzle and answer the questions in the video or below.

1. **Having no credit score makes it very difficult to get a credit card. This has prevented _____ from getting access to reasonable rates when borrowing.**
 - a. Those working in the gig economy
 - b. Americans over the age of 55
 - c. People in historically disadvantaged communities
 - d. Small business owners
2. **The Office of the Comptroller of the Currency asked _____ to come up with new ideas to increase access to credit for disadvantaged communities.**
 - a. Bankers, fintech companies, & nonprofit leaders
 - b. Legislators & politicians
 - c. Economics & policy professors
 - d. Community organizers
3. **According to the WSJ, the banks plan to share checking & savings account information with each other to:**
 - a. Find existing customers who might want a credit card
 - b. Compare average customers' financial data
 - c. Combine accounts for people with multiple of them
 - d. Determine if an applicant is creditworthy or not
4. **Supporters of this pilot program are saying:**
 - a. It will prevent people from relying on payday loans
 - b. It will decrease the amount of debt people have
 - c. It prevents bank fraud related to debit cards
 - d. It helps more people achieve the American dream
5. **Those who oppose the pilot program are criticizing it because they believe that it is:**
 - a. Another initiative banks will announce, but not implement
 - b. Just another tactic for banks to make more profits
 - c. A publicity stunt to get attention on big banks
 - d. A desperate attempt to keep up with fintech companies



MATH CONNECTION - WEIGHTED AVERAGES

A weighted average is a way to summarize data that has many repeating values in different groups. The mean, \bar{x} , can be calculated in two different ways:

- A. Multiplying each value by the frequency of that value, summing those products, and then dividing by the total number of values in the data set

Example A: Out of 10 scores, 5 were an 80%, 3 were a 75%, and 2 were a 90%

$$\bar{x} = \frac{(5 \cdot 80) + (3 \cdot 75) + (2 \cdot 90)}{10} = \frac{400 + 225 + 180}{10} = \frac{705}{10} = 70.5\%$$

- B. Finding the relative weight for each value by dividing the frequency of that value by the total number of values in the data set, then multiplying each value by its relative weight and summing up those products

Example B: Calculate your semester grade based on your average score in these grade categories and their relative weight.

Category	Average Score	Category Weight
Homework	100	20%
Quizzes	88	30%
Tests	82	50%

$$\bar{x} = (100 \cdot 0.2) + (88 \cdot 0.3) + (82 \cdot 0.5) = 20 + 26.4 + 41 = 87.4\%$$

Practice

Take a look at the following 25 scores given in percentages and pre-arranged from least to greatest:

30, 40, 50, 50, 50, 60, 60, 60, 70, 70, 70, 70, 70, 80, 80, 80, 80, 80, 80, 80, 90, 90, 90, 90, 100

1. Complete the frequency table for the different measurements

Value	30	40	50	60	70	80	90	100
Frequency								

2. Find the weighted average of the scores using your frequency table.

Now, take a look at these score breakdowns. In reality, credit score measurements are typically reported in a range, but for simplicity to calculate an overall weighted mean score, we will imagine all the people in that range have a single score as recorded in this table.

Score	% of Population
300	12%
400	6%
500	17%

600	29%
700	21%
800	15%

3. What do you think the average will be? Why do you make this guess?
4. Find the weighted average of scores for this group.
5. What does this weighted average tell us in this case?
6. How can you describe this distribution of credit scores using appropriate terminology?



EXIT TICKET

Follow your teacher's instructions to complete the Exit Ticket.

Teachers, you can find exit ticket questions on the Lesson Guide.