



Consumer Math | Solution Key



## **CONSUMER MATHEMATICS 2300**

## Teacher's Guide

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# CONSUMER MATHEMATICS SCOPE & SEQUENCE

Unit 1	PERSONAL FINANCIAL PLANNING  • Financial literacy  • Setting goals  • Career planning  • Souces of income  • Paychecks  • Taxes
Unit 2	MONEY MANAGEMENT  Creating a budget  Saving and investing  Spending wisely  Tracking spending  Money management tools
Unit 3	FINANCIAL INSTITUTIONS  • Types of financial institutions  • Bank services, tools, and resources  • Checking accounts  • Online banking  • Financial risks  • Managing risks
Unit 4	SAVING AND INVESTING  • Saving accounts  • Special saving accounts  • Investing vs. saving  • Investment products
Unit 5	CONSUMER CREDIT BASICS  Credit cards  Finance charges  Selecting the right credit card  Credit scores  Using credit responsibly  Consequences of excessive debt
Unit 6	CONSUMER LENDING  Overview of loans  Mortgage loans  Understanding mortgage payments  Types of loans  Financial aid for education  Renting vs. buying
Unit 7	SMART CONSUMER  • Consumer rights  • Savings account and loan rights  • Consumer responsibilities  • Understanding advertisement techniques
Unit 8	LIFE AND HEALTH INSURANCE  • Understanding life insurance  • Types of life insurance  • Understanding premiums  • Factors that affect life insurance costs  • Factors that affect life insurance premiums
Unit 9	RESPONSIBLE FINANCIAL PLANNING  Responsible habits to start today  Costs of financial irresponsibility  Finding and evaluating financial information  What to consider for retirement savings
Unit 10	REVIEWING CONSUMER MATH CONCEPTS  Incomes, banking, and budgets  Taxes, insurance, and investments  Credit scores, credit cards, and consumer loans  Managing debt and planning for the future



#### TEST SCORING AND GRADING

Answer keys and test keys give examples of correct answers. They convey the idea, but the student may use many ways to express a correct answer. The teacher should check for the essence of the answer, not for the exact wording. Many questions are high level and require thinking and creativity on the part of the student. Each answer should be scored based on whether or not the main idea written by the student matches the model example. "Any Order" or "Either Order" in a key indicates that no particular order is necessary to be correct.

Most self tests and LIFEPAC tests at the lower elementary levels are scored at 1 point per answer; however, the upper levels may have a point system awarding 2 to 5 points for various answers or questions. Further, the total test points will vary; they may not always equal 100 points. They may be 78, 85, 100, 105, etc.

#### **Example 1**



#### Example 2



A score box similar to ex. 1 above is located at the end of each self test and on the front of the LIFEPAC test. The bottom score, 72, represents the total number of points possible on the test. The upper score, 58, represents the number of points your student will need to receive an 80% or passing grade. If you wish to establish the exact percentage that your student has achieved, find the total points of their correct answers and divide it by the bottom number (in this case 72). For example, if your student has a point total of 65, divide 65 by 72 for a grade of 90%. Referring to ex. 2, on a test with a total of 105 possible points, the student would have to receive a minimum of 84 correct points for an 80% or passing grade. If your student has received 93 points, simply divide the 93 by 105 for a percentage grade of 89%.



The following is a guideline to assign letter grades for completed LIFEPACs based on a maximum total score of 100 points.

#### **Example**:

LIFEPAC Test = 60% of the Total Score (or percent grade)

Self Test = 25% of the Total Score (average percent of self tests)

Reports = 10% or 10\* points per LIFEPAC

Oral Work = 5% or 5\* points per LIFEPAC

#### **Example**:

LIFEPAC Test Score = 92% 92 x .60 = 55 points

Self Test Average = 90% 90 x .25 = 23 points

Reports = 8 points

Oral Work = 4 points

TOTAL POINTS = 90 points

#### **Grade Scale based on point system:**

100 - 94 = A

93 - 86 = B

85 - 77 = C

76 - 70 = D

Below 70 = F

<sup>\*</sup>Determined by the teacher's subjective evaluation of the student's daily work.



MATERIALS NEEDED FOR LIFEPAC		
Required	Suggested	
	<ul><li>internet access</li><li>note cards</li><li>pay statement example(s)</li></ul>	

#### ADDITIONAL LEARNING ACTIVITIES

#### **Section 1: Financial literacy**

This section introduces the basics of financial literacy, which includes anything to do with money. It's always a great idea to first find out what students already know—and don't know—about a topic before diving in. One way to start this unit is with the following activity.

#### **Activity 1 — Living Expenses Brainstorming Session**

Start by creating your own list of living expenses, listing the categories of items, such as housing, utilities, transportation, groceries, health insurance, auto insurance, etc. Then, without showing them your list, ask students what they think should be included in living expenses. Compare lists and you'll have an idea of what your student already knows about financial literacy and where there's room to grow.

#### **Section 2: Career Planning**

Career planning is a fun topic for students. Some students may already have part-time jobs, while others may not work yet. The following activity will get students thinking about how they would respond in different work situations and provide opportunities for discussion.

#### **Activity 1 — Career Scenario Cards**

Begin by listing scenarios on notecards. Examples might include:

A customer calls to complain about something they insist you messed up. Your manager takes the customer's side, but you know the customer is lying. What do you do?

You wake up late and are rushing to get out the door to work. But then you realize you have no clean uniform pants. What do you do?

You overhear an angry customer yelling at a co-worker, who looks close to tears. You aren't sure what the customer is mad about. What do you do?

This activity is a fun way to talk through potential job challenges and how to address them.

In the student book, students are introduced to the Bureau of Labor Statistics, which publishes the online annual Occupational Outlook Handbook. The handbook includes data on occupations, including median pay, entry-level education, training, projected number of jobs, and job growth rates. In the following optional activity, students will be given different careers to research.



#### **Optional Activity — Fishbowl Career Research**

Start by writing career titles on small pieces of paper. Choose as many careers as you'd like. Fold the pieces of paper and put them in a bowl. Students will pull a piece of paper from the bowl, see the career, and then research to find the:

- a. average salary
- b. demand for the job
- c. required education

#### **Section 3: Understanding Income**

In this section, students are introduced to different sources of income and paychecks. Students learn about different common deductions, the difference between gross and net pay, and more. Nothing beats seeing a real-life scenario, so the following optional activity involves sharing a real pay statement.

#### **Optional Activity — Pay Statement Sample**

Print or view online a real pay statement so students can see each deduction. After students complete Section 3 of their student book, have them see if they can identify all deductions in a real pay statement. Students can also identify gross and net income, hourly or salary rates, and the deductions for benefits.

#### Administer the LIFEPAC Test.



## ANSWER KEYS

#### **SECTION 1**

# **1.1** a **1.2** b, c, d, e, f **1.3** b **1.4** b

- 1.5 Example answer:
  Carl should become financially literate to gain understanding about where, how, and how much he should invest.
- 1.6 Example answer:
  Saving money, earning more money, making financial decisions easier, making smarter financial decisions, reducing costs, saving time, increasing how much you make on investments, reducing risks, making smart purchases, reaching goals, reducing stress or frustration, etc.)
- **1.7** Teacher check.
- **1.8** b
- **1.9** c
- **1.10** 4 **1.11** True
- **1.12** False
- **1.13** 3
- **1.14** 1
- **1.15** 5 **1.16** 4
- **1.17** 2
- **1.18** Teacher check.
- **1.19** a, b, e, f
- **1.20** d
- 1.21 Example answer:
  I will set aside \$50 per paycheck so that I can purchase the Dealer 5150 snowboard in December.
- **1.22** a
- **1.23** Example answer:

Nick is making great progress towards his goal and will most likely achieve it.

#### **SELF TEST 1**

- **1.01** i **1.02** c
- **1.03** e
- **1.04** j **1.05** f
- **1.06** h
- **1.07** a **1.08** b
- **1.09** d
- **1.010** g
- **1.011** True
- **1.012** True
- **1.013** False
- **1.014** False
- **1.015** True
- **1.016** False **1.017** True
- **1.018** False
- **1.019** True
- **1.019** True
- **1.021** 3
- **1.022** 1
- **1.022** 1
- **1.024** 4
- **1.025** 2
- **1.026** c
- **1.027** GH
- **1.028** BH
- **1.029** BH
- **1.030** GH
- **1.031** You should be financially literate to save money, earn more money, make smarter financial decisions, reduce costs, reach your goals, and reduce stress.
- **1.032** Example answer:

A financially responsible person sets goals, pays bills on time, spends less than they make, and has a budget.



#### **SELF TEST 3**

- **3.01** d h
- **3.02** n
- **3.04** b
- **3.04** b
- **3.06** e
- **3.07** j
- **3.08** a
- **3.09** i
- **3.010** C
- **3.011** False
- **3.012** False
- **3.013** True
- **3.014** False
- **3.015** True
- **3.016** True
- **3.017** True
- **3.018** False
- **3.019** False
- **3.020** True
- **3.021** 3
- **3.022** 1
- **3.023** 5
- **3.024** 4
- **3.025** 2
- **3.026** C
- **3.027** b
- **3.028** a
- **3.029** a
- **3.030** b
- **3.031** C **3.032** C
- **3.033** b
- **3.034** a

- **3.035** Example answer:
  - The purpose of a W-4 form is to let your employer know how much to take out of your paycheck for taxes.
- **3.036** Example answer:
  - We pay taxes so the government can pay for public services, such as road maintenance, public libraries, schools, and police departments.



#### LIFEPAC TEST

- 1. C
- 2. е
- 3. j
- 4.
- 5. d
- 6. а 7. b
- 8.
- g h
- 9. 10. i
- 11. False
- 12. True
- 13. True
- 14. False
- 15. False
- 16. False
- **17**. True
- 18. False
- 19. True
- 20. True
- 21. C
- 22. C
- 23. а
- 24. а
- 25. а
- 26. C
- 27. b
- 28. b
- 29. а
- 30.
- 31. Example answer:

You may see federal and state income tax deductions, social security tax, Medicare tax, health insurance, life or disability insurance, and retirement plan deductions.

Example answer: 32.

The purpose of a W-4 is to tell the government how much tax money to take out of your paycheck each tax period to pay for your taxes.



MATERIALS NEEDED FOR LIFEPAC		
Required	Suggested	
	<ul><li>internet access</li><li>notebook</li><li>notecards</li><li>jellybeans</li></ul>	

#### ADDITIONAL LEARNING ACTIVITIES

#### Section 1: Overview of a Budget

In this section, students learn about creating a budget, identifying fixed and variable expenses, savings plans, and more. In the following optional activities, students can experiment with how to divide a set income to pay for typical living expenses, research average pay for a career of interest, and then determine how they would create a budget to live off of that income.

#### Optional Activity 1 — Jellybean Budgeting

Give students each student a certain number of jellybeans, such as 20 beans. Explain that each bean represents a certain amount of money, such as \$200. On paper, list typical living expense categories (e.g., rent, food, car payment, utilities, etc.). Students then decide how to budget their 20 beans. Optional activity: As students decide how to budget, add an emergency expense like a car repair so they can see how that affects their budget plans!

#### Optional Activity 2 — Budget Draft for the Future

Have students think about a career they're interested in and look up the average salary. Then, have them construct a budget around that figure, estimating monthly rent, utility costs, groceries, etc.

#### **Section 2: Spending**

In this section, students learn about spending wisely, including categorizing needs vs. wants. In the following activities, students will practice identifying needs vs. wants, and price comparing.

#### Activity 1 — Deserted Island Needs vs. Wants Game

Create cards listing things like blankets, smart phones, dried food, candy, ChapStick, chewing gum, etc.—be sure to include items that students may need and items that might not be as useful on a deserted island. Give them parameters, such as you can choose five items from these cards. Students must then decide which items are most important (needs) and which are not (wants).

#### **Activity 2 — Grocery Store Field Trip**

Take students to a grocery store, give them a specific budget, and have them shop for items, comparing prices. Be sure to discuss the importance of quality with certain items, as well as quantity. Optional: Visit several grocery stores to compare pricing. This can also be done online!



#### **Section 3: Money Management Tools**

In this final section, students are introduced to a variety of money management tools that can be used to create and maintain a budget. The following optional activities provide opportunities to explore free budgeting tools and play fun board games that teach some great money management skills.

#### Optional Activity 1 — Practice with free money management tools

Goodbudget and Expenses OK are free budgeting apps, and Google Sheets is free. There are also other apps , spreadsheets, and software that can be found online with a search for "money management tools" or "budgeting tools."

#### **Optional Activity 2 — Money management board games**

The Game of Life and Monopoly are both great games to practice managing money, budgeting, planning for emergency expenses, and much more.

#### Administer the LIFEPAC Test.



MATERIALS NEEDED FOR LIFEPAC	
Required	Suggested
	<ul><li>internet access</li><li>example credit card statement</li></ul>

#### ADDITIONAL LEARNING ACTIVITIES

#### **Section 1: Credit Cards**

In this section, students learn about credit cards, including how to understand fees, interest rates, and more. In the following optional activities, students could review a real credit card statement and compare credit card options to determine the best choice.

#### Optional Activity 1 — Analyze a credit card statement

Looking at a real statement will give students opportunities to analyze the amount of interest accrued during the month and how much of the monthly payment will go to interest.

#### Optional Activity 2 — Compare/contrast credit card options

Visit the Nerdwallet.com website and navigate to credit cards, and then "Compare the top credit cards." There you can choose multiple credit cards to compare. The site provides information on annual fees, rewards, APR, and more for each card. Students can compare to determine which credit cards offer better deals.

#### **Section 2: Being Creditworthy**

In this section, students are introduced to credit scores and credit reports, and learn about what it means to be creditworthy. The following optional activities provide opportunities to explore how financial decisions impact credit rating.

#### Optional Activity 1 — Credit Score Jenga

Prepare for this activity by writing numbers 1 to 50 on every Jenga block, with each number corresponding to 50 possible finance-related events. Some should be good events—you pay off your credit card in full every month—and some should be bad events—you forgot to make your car payment and it's 45 days late. Set the game up and have students keep track of how each event impacts their credit score. If someone knocks down the whole Jenga tower, it's a credit score catastrophe!

#### Optional Activity 2 — Visit myfico.com to use the FICO Score Estimator

The estimator uses 10 questions to calculate an estimated FICO score. Students can use this to identify scenarios that improve or lower credit scores. The site has a lot of additional educational information about FICO scores.



#### **Section 3: Credit Problems**

In this final section, students learn about how credit problems impact financial health, as well as tips to avoid and correct credit problems. The following optional activities could introduce opportunities for discussion around financial choices.

#### Optional Activity 1 — Do or Don't Credit Game

Create a variety of scenarios related to credit. You'll say each scenario to students, and they can either respond or hold up signs that say "Do it!" or "Don't do it!" Examples include:

- You get a text from your bank that says there's a problem and asks you to text back yourbank account number. Do it or don't do it?
- You keep forgetting your debit card pin number. It would be easier if it was something really simple, like 1, 2, 3, 4, so you're thinking about changing it. Do it or don't do it?
- You don't have the money to pay your car payment this month, so you're thinking about taking a cash advance from a credit card. Do it or don't do it?
- You're enjoying having an income and want to buy the gaming system you've been wanting.
   You could wait a few more months and save up money to pay cash, or you could put it on a credit card now and make the payments each month until it's paid off. Do it or don't do it?

The more scenarios you can include, the better!

Optional Activity 2 — Calculating time to pay off a credit card with a minimum payment Review the real credit card statement again, and have the student analyze the APR, calculating how much interest is charged each month. Look at the minimum monthly payment, and have the student calculate how long it would take to pay off the credit card if only the minimum payment were made. You can also calculate how much interest would be paid over that time frame!

#### Administer the LIFEPAC Test.



MATERIALS NEEDED FOR LIFEPAC		
Required	Suggested	
	• internet access	

#### ADDITIONAL LEARNING ACTIVITIES

#### **Section 1: Consumer Rights**

In this section, students learn about their rights and responsibilities as consumers, including laws and regulations that protect consumers using checking and savings accounts. The following optional activity could provide students will opportunities to learn more from the Consumer Financial Protection Bureau.

#### Optional Activity 1 — Visit the Consumer Financial Protection Bureau website

The Consumer Financial Protection website, Consumerfinance.gov, includes a lot of educational materials about consumer rights and protections, as well as advice for planning for future goals. Have students explore something of interest or assign them a specific topic to research and write about in an essay. Student research could also be completed for a presentation activity.

#### **Section 2: Consumer Purchases**

In this section, students learn more about options for consumer protection, including tips for recognizing unethical business practices. The optional additional activity has students visit the Better Business Bureau website to learn educational tips and information, and research local businesses.

#### Optional Activity 1 — Visit the Better Business Bureau website

Visit the Better Business Bureau website at bbb.org, which includes a lot of educational materials. Students can look up local businesses, as well, to see their BBB rating. Students can also review the BBB Scam Tracker, which shows research, studies, news, and tips about scams. Students could again be assigned a specific topic to research for an essay or presentations.

#### Administer the LIFEPAC Test.





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