The Ultimate Step-by-Step Guide to
Mastering Personal Finance

# High School Personal Finance

2027



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# HIGH SCHOOL PERSONAL FINANCE

Practical Money Skills for Real-Life Decisions



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**Caption.** Priya chooses the $96 shift. If it were unavailable, she would spend six hours studying. That study time, not her third-choice sleep-in, is the opportunity cost.

### Worked Example: Stating an opportunity cost

Priya can work a six-hour shift at $16.00 per hour, study for an exam, or sleep in. She ranks studying second and sleeping third. She works the shift.

**Represent.** Priya ranks work first, study second, and sleep third.

**Relate.** Find the option she would choose if work fell through.

**Calculate.** Earnings from the shift:

$$6 \times \$16.00 = \$96.00.$$

The $96.00 is what work pays her.

**Interpret.** By taking the shift, Priya gives up six hours she would have used to study. We do not know the dollar value of a higher exam score.

**Check.** If the shift were canceled, she would study. That is the option to record.

✔ **Answer:** The opportunity cost of working is six hours of exam study. The $96.00 is the benefit of working, not its cost.

### The "if it vanished" test

If your chosen option vanished, what would you do instead? Name that option before trying to put a value on it. Priya would study, even though she also could have slept in.

### Turning a percent into a multiplier

22.99% means 22.99 out of 100, or $22.99 \div 100 = 0.2299$. To find 22.99% of $500, multiply $\$500 \times 0.2299$. If a worked example assumes a 6.25% combined sales-tax rate, multiply the price by 1.0625. The extra 1 keeps the original price in the total. Actual rates and taxable items vary by location.

The next best use of money may also have a dollar value. If you spend $500 on a bicycle, you cannot use that same $500 to reduce credit-card debt.

### Worked Example: The money form

Leo carries a credit-card balance. The card's **interest** rate is 22.99% a year. At that rate, $100 left unpaid for a full year would cost about $23 in interest. The exact charge depends on the daily balance and when payments are made.

Leo has $500.00. He can put it toward a credit card balance charging 22.99% annual interest, or buy a used bicycle so he can stop paying $62.00 a month for a bus pass. He chooses the bicycle.

**Relate.** Compare both choices in dollars per year.

**Calculate.** Interest avoided by paying the card:

$$\$500.00 \times 0.2299 = \$114.95 \text{ per year.}$$

Bus fare avoided by buying the bicycle:

$$12 \times \$62.00 = \$744.00 \text{ per year.}$$

**Interpret.** On this simple one-year estimate, putting $500 toward the card would avoid about $114.95 in interest. Leo gives up that saving if he buys the bicycle. He could avoid $744.00 in bus fares, provided the bicycle replaces every monthly pass.
**Check.** Both amounts are now annual estimates. A rate and a monthly fare could not have been compared directly.
**Decide.** The bicycle looks promising on these figures, but Leo has more to price: repairs, a lock, days he may still need the bus, and eventually a replacement bicycle. He should also keep enough cash for an emergency.

✔ **Answer:** Buying the bicycle gives up an estimated $114.95 of annual interest savings. It could avoid up to $744.00 in bus fares, before cycling costs and any bus rides Leo still takes.



### Choose Carefully

**Opportunity cost is the next best option**

Opportunity cost is not the total of all rejected options. If you had four choices and picked one, the cost is the single best of the other three, not the sum of all three.

## 1.3 Price Is Not Cost

The **price** gets your attention. The **total cost** includes what you must pay to buy, use, and keep the item for the period you are comparing. A $3,800 car, for example, also needs insurance and fuel this year.



**Caption.** First-year estimate: $3,800 purchase price + $1,440 insurance + $780 fuel + $420 maintenance + $295 tax and fees = $6,735. The purchase price is only part of what it takes to keep the car for a year.

When you compare two options, check these costs over the same period:

1. **Acquisition costs.** Sales tax, delivery, title, registration, setup or activation fees. Paid once, at the start.
2. **Recurring costs.** Insurance, subscriptions, fuel, data plans, association fees. Paid again as long as you use the item.

3. **Maintenance and repair.** Predictable on average, unpredictable in timing. Budgeted monthly even though it arrives in lumps.
4. **Financing costs.** If you borrow to buy it, add the interest and required loan charges.

**Worked Example: Two laptops**

For this comparison, a student needs an adapter and three years of warranty coverage. Laptop A costs \$640.00, with a \$95.00 adapter and a \$180.00 warranty sold separately. Laptop B costs \$820.00 and includes both. For this comparison, assume every purchased item is taxable at a combined state-and-local sales-tax rate of 6.25%.

**Represent.** Compare over the same three years and include everything required.

**Calculate.** Laptop A:

$$\text{tax} = (\$640.00 + \$95.00 + \$180.00) \times 0.0625 = \$915.00 \times 0.0625 = \$57.19$$

$$\text{total} = \$915.00 + \$57.19 = \$972.19$$

Laptop B:

$$\text{tax} = \$820.00 \times 0.0625 = \$51.25 \qquad \text{total} = \$820.00 + \$51.25 = \$871.25$$

**Check.** Laptop B has the higher price and the lower total cost, by

$$\$972.19 - \$871.25 = \$100.94.$$

**Interpret.** Laptop A's lower shelf price disappears once the student buys the required adapter and coverage. If the student did not need the warranty, the comparison would change.

✔ **Answer:** Laptop B, at \$871.25 against \$972.19, saves \$100.94 over three years.

**Write the list before you add**

Write down the charges before adding them. A \$14 monthly fee looks small beside a laptop price, but it adds \$168 to a year's cost. Check which charges are required and which you can decline.

## 1.4 Comparing Options with Unit Cost

An 18-ounce box and a 32-ounce box cannot be compared by price alone. **Unit cost** puts the prices on the same footing:

$$\text{unit cost} = \frac{\text{total cost}}{\text{number of units}}.$$

The unit can be anything, as long as it is the same on both sides: a pound, an ounce, a month, a mile, a serving, a use.

**Worked Example: Two package sizes**

A \$4.29 box holds 18 ounces. A \$6.89 box holds 32 ounces.

**Calculate.**

$$\frac{\$4.29}{18 \text{ oz}} = \$0.2383 \text{ per ounce} \qquad \frac{\$6.89}{32 \text{ oz}} = \$0.2153 \text{ per ounce}$$

**Check.** Multiply back: $32 \times \$0.2153 \approx \$6.89$.

**Interpret.** Keep four decimal places while comparing the two prices. The smaller box costs about 23.83 cents per ounce and the larger one about 21.53 cents. The gap is

$$\$0.2383 - \$0.2153 = \$0.0230 \text{ per ounce},$$

Chapter 2

MONEY AND DECISIONS

# Needs, Wants, and the Cost of Waiting

Sorting spending is not about judgment. It is about knowing which lines can move when something goes wrong.

**By the end of this chapter, you should be able to:**

- ✓ classify spending as a need or a want, and defend the borderline cases
- ✓ apply marginal thinking to decide about one more unit
- ✓ recognize a sunk cost and exclude it from a decision
- ✓ explain why a dollar today is worth more than a dollar later
- ✓ adjust an amount for inflation and interpret the result
- ✓ compute an expected value and say what it does and does not tell you

Chapter 1 was about a single decision. This chapter is about the patterns underneath many of them — the handful of ideas that decide whether a budget survives a bad month, whether a purchase is worth making at all, and why waiting has a price.

None of this is about being disciplined. It is about knowing which numbers matter. A person who can separate a need from a want, ignore a sunk cost, and put two amounts into the same year can make good decisions while tired. Ignoring a sunk cost feels wrong the first several times you do it, and that feeling is not a signal that you have made an error.

## 2.1 Sorting Needs from Wants

A **need** is something that, if you stopped paying for it, would change your ability to live or to work. A **want** is everything else. The test is functional, not moral: a want is not a failing, and a need is not a virtue.

The reason the distinction matters is practical. When income falls or a bill arrives unexpectedly, needs are the lines that cannot move, and wants are the lines that can. A budget with no clear separation has no shock absorber.

| Spending | Usually | Why it is not obvious |
|---|---|---|
| Housing | Need | Shelter is a need; the amount above a modest local rent is a want attached to it |
| Groceries | Need | Food is a need; a $9 lunch bought five days a week is a want |
| Phone service | Need | Effectively required for work and identity verification; the device upgrade is not |
| Transport to work | Need | The trip is a need; the vehicle chosen decides how expensive that need is |
| Minimum debt payment | Need | Missing it damages credit and adds fees |
| Payment above the minimum | Saving | It is voluntary like a want, but the money stays yours as debt you no longer owe, so budget it with saving |
| Streaming services | Want | Including the one nobody remembers subscribing to |

The labels in that table are this book's budgeting classification, not a universal definition of what a person needs. Calling the minimum debt payment a need is a budgeting decision: it goes in the group of lines that cannot move, because skipping it triggers fees and credit damage. Other courses and

other writers sort the same line differently, and a philosophy class would argue the word "need" means something else entirely. Use these labels the way the budgets in this book use them, and expect other sources to draw the line elsewhere.

**The category often depends on the amount**

Most arguments about needs and wants are really arguments about amounts. Shelter is a need at any price, but the difference between a $900 apartment and a $1,400 apartment is a want. Splitting a line into its need portion and its want portion is more useful than arguing about the label.

**Worked Example: Splitting a line**

Jordan pays $1,250 a month in rent. A comparable apartment in the same area, twenty minutes further out, rents for $940. Take-home pay — the amount that actually lands in the account each month, after taxes and other deductions — is $2,680.

**Represent.** One line, two components: the need portion and the amount above it.

**Calculate.**

$$\text{need portion} = \$940 \qquad \text{want portion} = \$1{,}250 - \$940 = \$310$$

As a share of net pay:

$$\frac{\$1{,}250}{\$2{,}680} = 0.4664\ldots \approx 46.6\%, \qquad \frac{\$940}{\$2{,}680} \approx 35.1\%.$$

**Check.** $940 + $310 = $1,250, and both percentages are of the same denominator.

**Interpret.** Housing at 46.6% of take-home pay is high enough to squeeze everything else. Calling the whole line a need makes it look immovable. Splitting it shows that $310 a month — $3,720 a year — is a choice, even though it is not a choice that can be made this month. The $310 is not free money either: the cheaper apartment costs forty minutes more travel a day, about fourteen hours a month, and Chapter 1's rule says that time belongs in the comparison. Whether the cheaper place comes out ahead once that time is counted is a separate question. What has changed is that the size of the choice is now a number instead of an argument.

✔ **Answer:** Need portion $940, want portion $310; housing is 46.6% of net pay against a 35.1% alternative.



## Choose Carefully

**Needing something is not a feeling**

Do not classify by feeling. "I need my coffee" and "I need my car to get to work" use the same word for very different things. The test is whether stopping the payment changes your ability to live or work.

# 2.2 Marginal Thinking

Most real decisions are not "all or nothing." They are "one more or not." **Marginal thinking** compares the additional benefit of one more unit with its additional cost, and ignores everything that has already happened.

$$\text{decide yes when} \quad \text{marginal benefit} > \text{marginal cost}.$$

**Worked Example: One more hour**

Alisha earns $17.50 an hour. A fifth hour of overtime this week would pay time and a half, and it would mean paying a sitter $14.00 an hour and missing a study session.

**Calculate.** Marginal benefit of the hour:

$$\$17.50 \times 1.5 = \$26.25.$$

Marginal money cost:

$$\$14.00.$$

Net money gain:

$$\$26.25 - \$14.00 = \$12.25.$$

**Interpret.** The hour clears $12.25 in cash. Whether it is worth taking depends on what the missed study session is worth — which is the opportunity cost from Chapter 1, now applied to one unit rather than to the whole week.
**Check.** Note what was *not* in the calculation: her total earnings this week, or her rent. Hours already worked matter here only because they are what put this hour into overtime. Once the rate for the hour is known, the earlier hours carry no further weight.

✔ **Answer:** $12.25 net per additional hour, before counting the forgone study time.

**The averages trap**

"I earn $17.50 an hour" is an average. The fifth overtime hour is worth $26.25 and the first hour of a shift that requires a $9.00 bus fare is worth $8.50. Decisions are made at the margin, where the numbers can differ sharply from the average.

## 2.3 Sunk Costs

A **sunk cost** is money, time, or effort already spent that cannot be recovered no matter what you decide next. Because it cannot be recovered, it should have no weight in the decision.

This is one of the few places where the correct reasoning feels wrong. Walking away from something you have already paid for feels like waste. The waste already happened. The only question left is what the next dollar should do.



**Caption.** A ticket bought yesterday cannot be unbought tonight. The decision now is whether attending or studying has more value from this point forward; the ticket's past price does not change that comparison.

**Worked Example: The repair that keeps growing**

Nora has already spent $1,450 on a car this year. It has broken down again. The mechanic quotes $1,300 for the repair, after which the car would be worth about $2,100. As it sits, unrepaired, a buyer would pay her $400 for it. A comparable replacement car costs $3,000.
**Represent.** Two forward-looking options. The $1,450 is gone under both, so it appears in neither column.
**Relate.** Compare where each choice leaves her: cash paid out, cash taken in, and what she owns at the end. The measure is the change in her total position, in dollars — not a ratio, because the two options leave her owning different cars.
**Calculate.** Start from today: she owns a broken car worth $400.