

CPP Payroll Calculations Workbook Sample Chapter

Payroll calculation practice that teaches the work behind the answer.

INSIDE

- 12 calculation-focused chapters
- 74 worked examples
- 150 original practice questions
- 2 mini exams
- Printable worksheets and formula cards

Prepared by PrepToPay

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PrepToPay CPP Payroll Calculations Workbook - Sample Chapter

2026 Edition

This sample includes the front-matter disclosures, study setup, and Chapter 1 from the full workbook.

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2026 Edition

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Education Disclaimer

This workbook is for payroll education and exam preparation. It is not legal, tax, accounting, payroll, or employment advice. Employers and payroll professionals should follow current law, agency guidance, company policy, professional judgment, and qualified advisors for live payroll decisions.

Source Date Note

Payroll figures and federal rule references in this workbook were reviewed against IRS, SSA, and U.S. Department of Labor sources on June 19, 2026. This workbook is built for 2026 payroll calculation practice. Payroll rules and annual limits can change, so always confirm current agency guidance before using these figures for live payroll decisions.

Welcome

Most payroll study material tells you the rule and then gives you a short question. This workbook is built differently. It slows the calculation down, shows the wage-base logic, and explains why the wrong answers are tempting but wrong.

The goal is not memorization for its own sake. The goal is payroll judgment: knowing what to include, what to exclude, what wage base applies, what the question is actually asking, and where a calculation can go sideways.

Who This Workbook Is For

This workbook is for:

- CPP candidates who want calculation-heavy practice
- Payroll workers who rely on software but want stronger manual calculation confidence
- Payroll leads, analysts, and specialists who need to explain how payroll numbers are built
- PrepToPay learners who want a focused companion to app-based practice

How to Use This Workbook

Use each chapter in three passes.

First, read the concept sections and formula cards. Do not rush the setup. CPP-style calculation mistakes often happen before the first number is multiplied.

Second, work the examples by hand. Cover the solution, write out the calculation path, and then compare your steps to the workbook.

Third, complete the practice questions and review every explanation, including the ones you answered correctly. Correct answers can hide weak reasoning, and weak reasoning eventually misses a harder version of the same topic.

Suggested Study Plans

30-Day Plan

Use this plan if you already have payroll experience and need concentrated calculation practice.

Week 1: Chapters 1-4
Week 2: Chapters 5-8
Week 3: Chapters 9-12
Week 4: Mini Exams, corrections, formula review

60-Day Plan

Use this plan if you are balancing study with full-time work or want more repetition.

Weeks 1-2: Chapters 1-4
Weeks 3-4: Chapters 5-8
Weeks 5-6: Chapters 9-12
Weeks 7-8: Mini Exams, missed-question log, final review

90-Day Plan

Use this plan if you are newer to manual payroll calculations or coming from a software-heavy role.

Weeks 1-3: Payroll foundations and gross-to-net logic

Weeks 4-6: Deductions, garnishments, and fringe benefits

Weeks 7-9: Employer taxes, deposits, forms, and reporting context

Weeks 10-12: Multi-step scenarios, mini exams, and review cycles

Calculation Setup

Unless a question states otherwise:

- Round money to the nearest cent.
- Treat federal rates and limits as 2026 figures.
- Ignore state and local taxes unless the question gives them.
- Follow the facts given in the scenario, even when a real payroll system would require more setup.
- Distinguish federal income tax wages, Social Security wages, Medicare wages, FUTA wages, and disposable earnings.

Quick Formula Reference

Gross pay - pretax deductions = taxable wages for the affected tax

Gross pay - pretax deductions - employee taxes - post-tax deductions = net pay

Social Security tax = Social Security taxable wages x 6.2%

Medicare tax = Medicare taxable wages x 1.45%

Additional Medicare Tax = Medicare wages over \$200,000 x 0.9%

Regular-rate overtime premium = regular rate x 0.5 x overtime hours

Ordinary garnishment limit = lesser of:

25% of disposable earnings

or disposable earnings above 30 x federal minimum wage

FUTA before credit = FUTA taxable wages x 6.0%

Net FUTA after full credit = FUTA taxable wages x 0.6%

Gross Pay to Net Pay

What You Need to Know

Gross-to-net is the path from what an employee earns to what the employee actually receives. Most payroll calculations are just pieces of this path.

The basic movement is:

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Gross pay
- Pretax deductions
= Taxable wages
- Employee taxes
- Post-tax deductions
= Net pay
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That looks simple, but CPP-style questions often test whether you know which items affect which wage base.

Why It Matters in Payroll

Payroll workers do not just "take taxes out." They decide or verify what kind of wages are being calculated, what deductions reduce taxable wages, what taxes apply, and what amounts are withheld after taxes.

A gross-to-net question may be testing:

- Whether a deduction is pretax or post-tax
- Whether a wage base limit applies
- Whether a benefit changes taxable wages
- Whether an amount affects federal income tax wages, FICA wages, or both
- Whether the employee's net pay is being calculated after all deductions

The Payroll Logic

1. Start with gross pay for the pay period.
2. Subtract deductions that reduce the relevant taxable wage base.
3. Calculate employee taxes using the correct wage base.
4. Subtract post-tax deductions.

5. Confirm that the answer requested is net pay, taxable wages, or a specific tax amount.

FORMULA CARD

Gross pay

- Pretax deductions
- = Taxable wages for the affected tax

Gross pay

- Pretax deductions
- Employee tax withholding
- Post-tax deductions
- = Net pay

Worked Example 1: Pretax and Post-Tax Deductions

Worked Example 1: Pretax and Post-Tax Deductions

Scenario

An employee has biweekly gross pay of \$3,200. The employee has a \$150 Section 125 medical deduction, a \$120 traditional 401(k) deduction, and a \$40 post-tax deduction. For this simplified example, federal income tax withholding is estimated at 12% of taxable FIT wages. Ignore state and local taxes.

Assume:

- Social Security tax rate: 6.2%
- Medicare tax rate: 1.45%
- The employee has not exceeded the Social Security wage base
- The 401(k) deduction reduces federal income tax wages but not FICA wages
- The Section 125 deduction reduces both federal income tax wages and FICA wages

Step-by-Step Solution

1. Start with gross pay.

Gross pay = \$3,200.00

2. Calculate federal income tax wages.

$\$3,200.00 - \$150.00 - \$120.00 = \$2,930.00$

3. Estimate federal income tax withholding.

$\$2,930.00 \times 12\% = \351.60

4. Calculate FICA wages.

The Section 125 deduction reduces FICA wages. The traditional 401(k) deduction does not.

$$\$3,200.00 - \$150.00 = \$3,050.00$$

5. Calculate Social Security tax.

$$\$3,050.00 \times 6.2\% = \$189.10$$

6. Calculate Medicare tax.

$$\$3,050.00 \times 1.45\% = \$44.23$$

7. Calculate net pay.

$$\begin{aligned} & \$3,200.00 \\ & - \$150.00 \text{ Section 125 deduction} \\ & - \$120.00 \text{ 401(k) deduction} \\ & - \$351.60 \text{ federal income tax} \\ & - \$189.10 \text{ Social Security tax} \\ & - \$44.23 \text{ Medicare tax} \\ & - \$40.00 \text{ post-tax deduction} \\ & = \$2,305.07 \text{ net pay} \end{aligned}$$

Answer

The employee's estimated net pay is **\$2,305.07**.

Worked Example 2: Section 125 Deduction Only

Worked Example 2: Section 125 Deduction Only

Scenario

An employee has weekly gross pay of \$1,250. The employee has a \$75 Section 125 medical deduction and a \$25 post-tax deduction. For this simplified example, federal income tax withholding is estimated at 10% of taxable FIT wages. Ignore state and local taxes.

Assume:

- Social Security tax rate: 6.2%
- Medicare tax rate: 1.45%
- The employee has not exceeded the Social Security wage base
- The Section 125 deduction reduces both federal income tax wages and FICA wages

Step-by-Step Solution

1. Calculate taxable FIT wages.

$$\$1,250.00 - \$75.00 = \$1,175.00$$

2. Estimate federal income tax withholding.

$$\$1,175.00 \times 10\% = \$117.50$$

3. Calculate FICA wages.

$$\$1,250.00 - \$75.00 = \$1,175.00$$

4. Calculate Social Security and Medicare.

$$\$1,175.00 \times 6.2\% = \$72.85 \text{ Social Security tax}$$

$$\$1,175.00 \times 1.45\% = \$17.04 \text{ Medicare tax}$$

5. Calculate net pay.

$$\begin{aligned} & \$1,250.00 \\ & - \$75.00 \text{ Section 125 deduction} \\ & - \$117.50 \text{ federal income tax} \\ & - \$72.85 \text{ Social Security tax} \\ & - \$17.04 \text{ Medicare tax} \\ & - \$25.00 \text{ post-tax deduction} \\ & = \$942.61 \text{ net pay} \end{aligned}$$

Answer

The employee's estimated net pay is **\$942.61**.

Worked Example 3: Traditional 401(k) and FICA Wages

Worked Example 3: Traditional 401(k) and FICA Wages

Scenario

An employee has gross pay of \$2,800 and contributes \$250 to a traditional 401(k). The employee has no Section 125 deduction and no post-tax deductions. For this simplified example, federal income tax withholding is estimated at 11% of taxable FIT wages. Ignore state and local taxes.

Assume:

- The traditional 401(k) deduction reduces federal income tax wages
- The traditional 401(k) deduction does not reduce FICA wages
- The employee has not exceeded the Social Security wage base

Step-by-Step Solution

1. Calculate taxable FIT wages.

$$\$2,800.00 - \$250.00 = \$2,550.00$$

2. Estimate federal income tax withholding.

$$\$2,550.00 \times 11\% = \$280.50$$

3. Identify FICA wages.

$$\text{FICA wages} = \$2,800.00$$

4. Calculate FICA taxes.

$$\$2,800.00 \times 6.2\% = \$173.60 \text{ Social Security tax}$$

$$\$2,800.00 \times 1.45\% = \$40.60 \text{ Medicare tax}$$

5. Calculate net pay.

$$\$2,800.00$$

$$- \$250.00 \text{ 401(k) deduction}$$

$$- \$280.50 \text{ federal income tax}$$

$$- \$173.60 \text{ Social Security tax}$$

$$- \$40.60 \text{ Medicare tax}$$

$$= \$2,055.30 \text{ net pay}$$

Answer

The employee's estimated net pay is **\$2,055.30**.

Worked Example 4: State Tax and Post-Tax Deduction

Worked Example 4: State Tax and Post-Tax Deduction

Scenario

An employee has gross pay of \$1,900, a \$100 Section 125 deduction, a \$150 traditional 401(k) deduction, and a \$60 post-tax deduction. For this simplified example, federal income tax withholding is estimated at 12% of taxable FIT wages and state withholding is estimated at 4% of taxable FIT wages.

Assume:

- The Section 125 deduction reduces FIT and FICA wages
- The traditional 401(k) deduction reduces FIT wages but not FICA wages
- The employee has not exceeded the Social Security wage base

Step-by-Step Solution

1. Calculate taxable FIT wages.

$$\$1,900.00 - \$100.00 - \$150.00 = \$1,650.00$$

2. Estimate federal and state withholding.

$$\$1,650.00 \times 12\% = \$198.00 \text{ federal income tax}$$

$$\$1,650.00 \times 4\% = \$66.00 \text{ state income tax}$$

3. Calculate FICA wages.

$$\$1,900.00 - \$100.00 = \$1,800.00$$

4. Calculate FICA taxes.

$$\$1,800.00 \times 6.2\% = \$111.60 \text{ Social Security tax}$$

$$\$1,800.00 \times 1.45\% = \$26.10 \text{ Medicare tax}$$

5. Calculate net pay.

$$\$1,900.00$$

$$- \$100.00 \text{ Section 125 deduction}$$

$$- \$150.00 \text{ 401(k) deduction}$$

$$- \$198.00 \text{ federal income tax}$$

$$- \$66.00 \text{ state income tax}$$

$$- \$111.60 \text{ Social Security tax}$$

$$- \$26.10 \text{ Medicare tax}$$

$$- \$60.00 \text{ post-tax deduction}$$

$$= \$1,188.30 \text{ net pay}$$

Answer

The employee's estimated net pay is **\$1,188.30**.

Worked Example 5: Social Security Wage Base Crossed During Payroll

Worked Example 5: Social Security Wage Base Crossed During Payroll

Scenario

An employee has \$183,900 in year-to-date Social Security wages before the current payroll. The employee receives \$2,000 in gross pay. There are no pretax or post-tax deductions. For this simplified example, federal income tax withholding is estimated at 15% of gross pay. Ignore state and local taxes.

Assume:

- 2026 Social Security wage base: \$184,500

- Social Security tax rate: 6.2%

- Medicare tax rate: 1.45%

Step-by-Step Solution

1. Calculate federal income tax withholding.

$$\$2,000.00 \times 15\% = \$300.00$$

2. Find the remaining Social Security wage base.

$$\$184,500.00 - \$183,900.00 = \$600.00$$

3. Calculate Social Security tax only on the remaining wage base.

$$\$600.00 \times 6.2\% = \$37.20$$

4. Calculate Medicare tax on the full current pay.

$$\$2,000.00 \times 1.45\% = \$29.00$$

5. Calculate net pay.

$$\begin{aligned} & \$2,000.00 \\ & - \$300.00 \text{ federal income tax} \\ & - \$37.20 \text{ Social Security tax} \\ & - \$29.00 \text{ Medicare tax} \\ & = \$1,633.80 \text{ net pay} \end{aligned}$$

Answer

The employee's estimated net pay is **\$1,633.80**.

Worked Example 6: Additional Medicare Tax in Gross-to-Net

Worked Example 6: Additional Medicare Tax in Gross-to-Net

Scenario

An employee has \$201,000 in year-to-date Medicare wages before the current payroll. The employee receives \$5,000 in gross pay. The employee has already exceeded the Social Security wage base. There are no deductions. For this simplified example, federal income tax withholding is estimated at 18% of gross pay. Ignore state and local taxes.

Assume:

- Regular Medicare tax rate: 1.45%
- Additional Medicare Tax rate: 0.9%
- The full current payroll is subject to Additional Medicare Tax because the employee already exceeded \$200,000 before the payment

Step-by-Step Solution

1. Calculate federal income tax withholding.

$$\$5,000.00 \times 18\% = \$900.00$$

2. Calculate Social Security tax.

$$\text{Social Security tax} = \$0.00$$

The employee already exceeded the Social Security wage base before this payroll.

3. Calculate regular Medicare tax.

$$\$5,000.00 \times 1.45\% = \$72.50$$

4. Calculate Additional Medicare Tax.

$$\$5,000.00 \times 0.9\% = \$45.00$$

5. Calculate net pay.

$$\begin{aligned} & \$5,000.00 \\ & - \$900.00 \text{ federal income tax} \\ & - \$72.50 \text{ regular Medicare tax} \\ & - \$45.00 \text{ Additional Medicare Tax} \\ & = \$3,982.50 \text{ net pay} \end{aligned}$$

Answer

The employee's estimated net pay is **\$3,982.50**.

COMMON MISTAKES

- Treating every pretax deduction as pretax for every tax
- Forgetting that traditional 401(k) deductions generally do not reduce FICA wages
- Calculating tax before determining the right wage base
- Subtracting a post-tax deduction before tax calculation
- Answering with taxable wages when the question asks for net pay

PRACTICE

Question 1

An employee earns \$2,500 in gross pay. The employee has a \$100 Section 125 deduction and a \$75 post-tax deduction. Ignore federal income tax and state tax. The employee has not exceeded the Social Security wage base. What are the

employee Social Security and Medicare taxes?

- A. Social Security \$155.00; Medicare \$36.25
- B. Social Security \$148.80; Medicare \$34.80
- C. Social Security \$143.15; Medicare \$33.50
- D. Social Security \$159.65; Medicare \$37.34

Question 2

An employee earns \$4,000 in gross pay and contributes \$200 to a traditional 401(k). For this simplified question, federal income tax withholding is 10% of taxable FIT wages. What federal income tax withholding should be estimated?

- A. \$200.00
- B. \$400.00
- C. \$420.00
- D. \$380.00

Question 3

Which deduction is most likely to be subtracted after taxes when calculating net pay?

- A. Post-tax wage repayment deduction
- B. Traditional 401(k) deduction
- C. Section 125 medical deduction
- D. Pretax dental deduction

Question 4

An employee has \$1,800 gross pay, a \$100 Section 125 deduction, and a \$50 traditional 401(k) deduction. Which amount is used as FICA wages, assuming no wage base limit has been met?

- A. \$1,650
- B. \$1,750
- C. \$1,700
- D. \$1,800

Question 5

A gross-to-net question gives regular pay, a pretax deduction, a post-tax deduction, and employee tax withholding. What should be calculated last?

- A. Gross pay

- B. Taxable wages
- C. Pretax deductions
- D. Net pay

ANSWER EXPLANATIONS

Answer 1

B is correct. The Section 125 deduction reduces FICA wages in this simplified scenario.

$$\begin{aligned} \$2,500 - \$100 &= \$2,400 \text{ FICA wages} \\ \$2,400 \times 6.2\% &= \$148.80 \text{ Social Security tax} \\ \$2,400 \times 1.45\% &= \$34.80 \text{ Medicare tax} \end{aligned}$$

The post-tax deduction affects net pay, not the FICA wage base.

Answer 2

D is correct. A traditional 401(k) contribution generally reduces federal income tax wages.

$$\begin{aligned} \$4,000 - \$200 &= \$3,800 \text{ taxable FIT wages} \\ \$3,800 \times 10\% &= \$380.00 \end{aligned}$$

Answer 3

A is correct. A post-tax wage repayment deduction is taken after taxes. The other choices describe pretax deductions.

Answer 4

C is correct. The Section 125 deduction reduces FICA wages, but the traditional 401(k) deduction generally does not.

$$\$1,800 - \$100 = \$1,700 \text{ FICA wages}$$

Answer 5

D is correct. Net pay is the end of the gross-to-net path. It comes after taxable wages, employee taxes, and post-tax deductions are known.

PAYROLL WORKER NOTE

In real payroll, never assume "pretax" means pretax for everything. Ask: pretax for which tax?