

# Would You Rather? Answers

## Scenario A

For \$5000 in a savings account for 4 years, would you rather have:

- an annual rate of 4% simple interest, or
- an annual rate of 3% compound interest?

**Simple interest: \$800;**  
**Compound interest \$627.54**

Simple Interest Calculator  $A = P(1 + rt)$

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**Simple Interest Calculator**

Solve for: Total P+I (A)   
Where:  $A = P(1 + rt)$

Principal (P): \$ 5,000.00

Rate (R): % 4  
per year

Time (t): 4  
years

Answer:  
A = \$5,800.00

<https://www.calculatorsoup.com/calculators/financial/simple-interest-plus-principal-calculator.php>

## Results

Total value of your investment: <b>\$5,627.54</b>	Total interest earned: <b>\$627.54</b>
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Your initial investment of **\$5,000.00** plus your **weekly** investment of **\$0.00** at an annualized interest rate of **3%** will be worth **\$5,627.54** after **4 years** when compounded **yearly**.

<https://www.getsmarteraboutmoney.ca/calculators/compound-interest-calculator/>

**Number  
Unit 4 Line Master 6b**

**Would You Rather?  
Answers (cont'd)**

**Scenario B**

For a loan of \$5000 for 5 years, then you repay the loan, would you rather have:

- an annual rate of 3.25% simple interest, or
- an annual rate of 2.75% compound interest?

**Simple interest: \$812.50**

**Compound interest: \$726.37**

Simple Interest Calculator  $A = P(1 + rt)$

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**Simple Interest Calculator**

Solve for: Total P+I (A)   
Where:  $A = P(1 + rt)$

Principal (P): \$ 5,000.00   
Rate (R): % 3.25   
per year  
Time (t): 5   
years

Answer:  
A = \$5,812.50  
I = A - P = \$812.50

<https://www.calculatorsoup.com/calculators/financial/simple-interest-plus-principal-calculator.php>

**Deferred Payment Loan: Paying Back a Lump Sum Due at Maturity**

Loan Amount \$5000   
Loan Term 5 years   
0 months   
Interest Rate 2.75 %   
Compound Annually (APY)

**Results:**

Amount Due at Loan Maturity **\$5,726.37**  
Total Interest **\$726.37**

[View Schedule Table](#)



■ Principal  
■ Interest

<https://www.calculator.net/loan-calculator.html?c2loanamount=5000&c2loanterm=5&c2loantermmonth=0&c2interestrate=2.75&c2compound=annually&x=60&y=24&type=2#intheend>

**Number  
Unit 4 Line Master 6c**

## **Would You Rather? Answers (cont'd)**

### **Scenario C**

For a credit card debt of \$5000 with an annual interest rate of 17.5% compounded monthly, would you rather pay:

- the minimum monthly amount only, or
- the minimum amount plus \$10, or
- a fixed monthly rate of \$200?

**Paying a fixed amount each month saves \$3276.28**

<https://itools-ioutils.fcac-acfc.gc.ca/CCPC-CPCC/CCPCCalc-CPCCCalc-eng.aspx>

#### **Calculation Results**

	<b>Option A: What if you only make the minimum payment each month?</b>	<b>Option B: What if you make the minimum payment plus an additional amount each month?</b>	<b>Option C: What if you pay a fixed amount each month?</b>
<b>Time to pay off</b>	18 years and 5 months	11 years	2 years and 8 months
<b>Original balance</b>	\$5,000.00	\$5,000.00	\$5,000.00
<b>Interest paid</b>	\$4,540.91	\$3,400.52	\$1,264.63
<b>Total paid</b>	\$9,540.91	\$8,400.52	\$6,264.63
<b>Amount saved</b>	-	\$1,140.39	\$3,276.28
<b>Time saved</b>	-	7 years and 5 months	15 years and 9 months