

Teacher: Math Applications Year: 2017-2018  
 Course: Math Applications Month: All Months

Basic Math Skills Workshop

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How do you use math skills on a daily basis?	Writing and Reading Numbers	Place Value	Place value	Chapter Test	Same as Content Skills	Textbook "Mathematics for Business and Personal Finance"	
	Rounding Numbers	To Round Whole numbers	Rounding				
	Comparing Numbers Adding Decimals	To Round Dollars and Cents to the nearest Cent	Decimals				
	Subtracting Decimals	To Compare Whole numbers to See Which one is Greater	Whole numbers				
	Multiplying Decimals	To Compare Decimals to See Which One is Greater	Aligning decimals				
	Dividing Decimals	To Add Decimals with the Same number of Decimal Places	Mixed number				
	Multiplying Fractions	To Add Decimals with a Different number of Decimal Places	Improper fraction				
	Dividing Fractions	To Add Amounts of Money	Common denominator				
	Adding Fractions	To Subtract Decimals With the Same number of Decimal Places	Mixed fractions				
	Subtracting Fractions	To Subtract Decimals With a Different number of Decimal Places	Percentage				
	Fraction to Decimal, Decimal to Percent	To Subtract Amounts of money	Average{Mean}				
	Finding a Percentage	To Multiply Decimals	Elapsed Time				

Average{Mean}	To multiply amounts of Money	Unit of measure
Elapsed Time	To Divide decimals	Rounding
Units of Measurement	To Divide and Amount of money by a Whole Number	Word problems
Problem-Solving Strategy: Using	To multiply Fractions	
Problem the Four-Step Method	To Multiply Fractions and Whole Numbers	
Problem Solving Strategy: Identifying Information	To Simplify Fractions	
Problem-Solving Strategy: Multiple Operations	To Multiply mixed numbers	
	To Divide Fractions	
	To Add Fractions with a common Denominator	
	To Find the Least Common Denominator	
	To Subtract fractions with a Common Denominator	
	To Rename a Fraction as a Decimal	
	To Write a Decimal as a Percent	
	To Find the percentage of a Number	
	To Find the Average or Mean of a Group of Numbers	

To Find Elapsed Time

To Convert From one unit of  
Measure to Another

To estimate an Answer by Rounding

To Solve Problems using the Four-  
step method

To Solve Word problems That may  
provide More Information Than is  
Needed to Solve the Problem

To Identify Word Problems for  
Which Additional Information is  
needed and Thus Cannot be Solved

To Solve problems That Require  
several Operations

## Basic Math Skills Workshop

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How do you use math skills on a daily basis?	Writing and Reading Numbers	Place Value	Place value	Chapter Test	Same As Content Skills	Textbook "Mathematics for Business and Personal Finance"	
	Rounding Numbers	To Round Whole numbers	Rounding				
	Comparing Numbers Adding Decimals	To Round Dollars and Cents to the nearest Cent	Decimals				
	Subtracting Decimals	To Compare Whole numbers to See Which one is Greater	Whole numbers				
	Multiplying Decimals	To Compare Decimals to See Which One is Greater	Aligning decimals				
	Dividing Decimals	To Add Decimals with the Same number of Decimal Places	Mixed number				

Multiplying Fractions	To Add Decimals with a Different number of Decimal Places	Improper fraction
Dividing Fractions	To Add Amounts of Money	Common denominator
Adding Fractions	To Subtract Decimals With the Same number of Decimal Places	Mixed fractions
Subtracting Fractions	To Subtract Decimals With a Different number of Decimal Places	Percentage
Fraction to Decimal, Decimal to Percent	To Subtract Amounts of money	Average{Mean}
Finding a Percentage	To Multiply Decimals	Elapsed Time
Average{Mean}	To multiply amounts of Money	Unit of measure
Elapsed Time	To Divide decimals	Rounding
Units of Measurement	To Divide and Amount of money by a Whole Number	Word problems
Problem-Solving Strategy: Using	To multiply Fractions	
Problem the Four-Step Method	To Multiply Fractions and Whole Numbers	
Problem Solving Strategy: Identifying Information	To Simplify Fractions	
Problem-Solving Strategy: Multiple Operations	To Multiply mixed numbers	
	To Divide Fractions	
	To Add Fractions with a common Denominator	

To Find the Least Common  
Denominator

To Subtract fractions with a  
Common Denominator

To Rename a Fraction as a Decimal

To Write a Decimal as a Percent

To Find the percentage of a Number

To Find the Average or Mean of a  
Group of Numbers

To Find Elapsed Time

To Convert From one unit of  
Measure to Another

To estimate an Answer by Rounding

To Solve Problems using the Four-  
step method

To Solve Word problems That may  
provide More Information Than is  
Needed to Solve the Problem

To Identify Word Problems for Which  
Additional Information is needed  
and Thus Cannot be Solved

To Solve problems That Require  
several Operations

## Gross Income

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How do I calculate straight-time, overtime, total pay and commission?		Calculate straight-time pay	hourly rate	Test on 1.1--1.4			
		Calculate straight-time, overtime and total pay	straight-time pay				
		Calculate total hours on a weekly time card	gross income	Lessons 1.5--1.7			
		Compute the total pay on a piecework basis	overtime pay				
		Determine the salary per pay period	time and a half				
		Calculate the straight commission and determine the gross pay	double time				
		Compute the total graduated commission	weekly time card				
		Calculate the net pay per pay period	piecework				
			salary				
			commission				
			commission rate				
			straight				
			commission				
			graduated				
			commission				

## Net Income

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards			
How do I find deductions from a paycheck to determine net income?		Determine the amount withheld for federal income tax	federal income tax	Test on 2.1--2.3						
			withholding allowance exemption	Test on 2.4--2.6						
		Compute state taxes on a straight percent basis Determine the state tax on a graduated tax basis Compute the amount withheld for Social Security and Medicare taxes Calculate the deduction for group insurance	Social Security							
			Medicare							
			group insurance							
			net pay							

## Recordkeeping

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How can I track expenditures and how do I create and maintain a budget?		Compute the average monthly expenditures Use records of past expenditures to prepare a monthly budget sheet Compare the amount budgeted to actual expenditures	Recordkeeping  expenditures  budget sheet  living expenses budget fixed expenses annual expenses expense summary emergency fund	Test on 3.1--3.3			

## Checking Accounts

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
What are the benefits of having a checking account?		Compute the total checking account deposit Write a check  Calculate the balance in a check register  Calculate the present balance on a checking account bank statement Reconcile a check register with a bank account statement Compute on line banking charges and update the check register	deposit  automated teller machine personal identification number checking account  check  check register balance bank statement service charge reconcile	Test on 4.1--4.3  Test on 4.4--4.6			

## Savings Accounts

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
What are your financial goals?		Compute a savings account deposit slip and compute the total deposit	savings account	test on 5.1-5.4			
How can saving help you meet them?		Fill out a savings account withdrawal slip	depositd	Test on 5.5--5.8			

Compute the new balance of a savings account statement	withdrawal
Calculate simple interest and the amount	account statement
Determine the compound interest and the amount	interest
Calculate the interest for daily compounding	principal
	annual interest rate
	compound interest
	ordinary annuity

## Managing Your Expenses

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How do you know if you are getting a good deal when making a purchase?		Compute the sales tax	sales tax	Test on 6.1--6.4			
		Calculate the total purchase price	sales receipt	Test on 6.5--6.7			
		Determine the unit price	total purchase price				
		Find the best buy based on unit price	unit pricing				
		Calculate an item's final price after using a coupon or receiving a rebate	coupons				
		Solve the dollar amount of the markdown	rebates				
		Compute the sale price when the markdown rate is known	markdown markdown rate sale price				



## Charge accounts and Credit Cards

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
What are the reasons for having a credit card?		Calculate the new balance on a charge account Compute the finance charges by using the unpaid-balance method Compute the finance charge based on the average-daily-balance method	credit card  charge account  account statement  finance charge unpaid-balance method average-daily-balance method	Test on 7.1--7.3			

## Loans

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
What are the reasons someone might take out a large loan?		Compute the maturity value and interest rate of a single-payment loan Calculate the down payment and the amount financed on an installment loan Calculate the monthly payment, total amount repaid, and finance charge on an installment loan Calculate the payment to interest, payment to principal, and the new balance Compute the final payment when paying off an installment loan Determine the annual percentage rate of a loan using a table and a formula	single-payment loan  promissory note  maturity value  term  ordinary interest  exact interest  installment loan down payment amount financed annual percentage rate	Test on 8.1--8.3  Test 8.4--8.6			

repaymschedule  
final payment

## Vehicle Transportation

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
What factors would influence your decision when purchasing a vehicle?		Compute the sticker price of a new vehicle	sticker price	Test on 9.1--9.4			
		Calculate the dealer's cost of a new vehicle	base price	Test on 9.5--9.7			
		Figure out the average retail price or wholesale price of a used vehicle	options				
		Use tables to compute the annual premium for vehicle insurance	destination charge				
		Compute the total cost per mile of operating and maintaining a vehicle	dealer's cost				
		Calculate the total cost of leasing a vehicle	liability insurance				
		Calculate the cost to rent a vehicle and the cost per mile to drive a rented vehicle	comprehensive insurance				
			deductible clause annual premium variable costs fixed costs depreciation lease				

## Housing Costs

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
How will you decide whether to rent or to purchase a home?		Compute the mortgage loan amount	mortgage loan	Test on 10.1--10.3			
		determine the monthly payment using a table or formula, the total amount paid, and the total interest charged	closing costs	Test on 10.4--10.6			
		Calculate the total closing costs	real estate taxes	Test on 10.7--10.9			
		Compute the allocation of the monthly payment to principal and the interest and the new principal	market value				

Calculate the assessed value and real tax rate  
 estate taxes for a home  
 Determine the amount of coverage homeowners  
 for homeowners insurance  
 Calculate the annual homeowners personal liability  
 insurance premium coverage  
 Compare the total costs of renting medical coverage  
 with the costs of owning a home  
 replacement value  
 premium  
 security deposit

## Insurance

Essential Questions	Content	Knowledge and Skills	Vocabulary	Assessments	Lessons	Resources	Standards
When do people use insurance?		Compute health insurance premiums  Calculate the amount a patient pays for health care Use tables to compute the annual premium for term life insurance	health insurance  deductible co-payment life insurance  beneficiary cash value	Test on 11.1--11.3			