

Austin Community College

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Accounting Department

Presents

**Math for Accounting:**

**Basic Concepts**



# Examples

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- ✓ Basic math concepts
- ✓ Used in accounting applications





# Actual Accounting Examples

Some of the concepts may be new you.



Don't worry –  
you will cover these in detail.



For now –  
let's focus on the math concepts.





# Tools

Use your calculator



Print the narrative





# Vertical Analysis

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## Course Syllabus

Grading Element	Points
Exams	450
Homework	100
Attendance	50
Class Activities	200
Total	800



# Percentages

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Grading Element	Points	%
Exams	450	56.25%
Homework	100	12.50%
Attendance	50	6.25%
Class Activities	200	25.00%
Total	800	100%

$$450/800 \times 100$$

$$100/800 \times 100$$

$$50/800 \times 100$$

$$200/800 \times 100$$

$$56.25 + 12.5 + 6.25 + 25 = 100$$



# Horizontal Analysis

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- Inflation Rate: 5%
- Current Salary: \$40,000
- New Salary: \$42,500

Did the salary increase keep up with the inflation rate?



# Horizontal Analysis

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Ending Amount - Beginning Amount

Beginning Amount X 100

$$\frac{\$42,500 - \$40,000}{\$40,000} = \frac{\$2,500}{\$40,000} \times 100 = 6.25\%$$



# Horizontal Analysis

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Percent of Increase:

6.25%

Inflation Rate:

5.00%





# Take Home Pay

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## Monthly Salary Information:

Item	Data
Gross Pay	\$4,000
Federal Income Tax (FIT)	10 % of gross pay
Social Security	6.2 % of gross pay
Medicare	1.45 % of gross pay

# Take Home Pay

Item	Data	Amount
Gross Pay	\$4,000	\$4,000
FIT	10 % of gross pay	(400)
Social Security	6.2 % of gross pay	(248)
Medicare	1.45 % of gross pay	(58)
Net		\$3,294

$$4,000 \times .10$$

$$4,000 \times .062$$

$$4,000 \times .0145$$

$$4,000 - 400 - 248 - 58 = 3,294$$



# Allocation

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Two friends contribute to an investment:

Friend A – \$100,000

Friend B – \$200,000

Agreement:

- after 2 years
- allocate the value **\$500,000**  
based on the original contributions



# Step 1

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Determine the percentage that each originally invested:

A	<b>\$ 100,000</b>	33.33
B	<b>\$ 200,000</b>	66.67
	<b>\$ 300,000</b>	100 %

$$100,000/300,000 \times 100 \approx 33.33\%$$

$$200,000/300,000 \times 100 \approx 66.67\%$$

Rounding Issue

## Step 2

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Allocate the \$500,000 based on the %:

%	Allocation of \$500,000
33.33	<b>\$ 166,650</b>
66.67	<b>\$ 333,350</b>
100	<b>\$ 500,000</b>

$$500,000 \times .3333$$

$$500,000 \times .6667$$



# Average

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## Balance Sheet Amounts

<b>Assets (in thousands)</b>	<b>12/31/X1</b>	<b>12/31/X2</b>
	<b>\$ 1,360,000</b>	<b>\$1,840,000</b>

The actual amounts are

**\$1,360,000,000 and \$1,840,000,000**

Add 3 zeros



# Average

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$$\frac{\text{Beginning Amount} + \text{Ending Amount}}{2}$$

$$\frac{\$1,360,000 + \$1,840,000}{2}$$

$$= \$1,600,000$$

(in thousands)

# Summary

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- Proper Tools
  - Calculator, Excel, Pencil and Paper
- Reasonable answer
- Practice
- Help
  - Instructor/Tutor
  - Classmates, friends, family

