Portland Community College

MATH 30

BUSINESS MATHEMATICS

MTH 20
Basic Math
Arithmetic

MTH 30
Business
Mathematics
(optional course)

MTH 60
or
MTH 61

ARE YOU PREPARED?

✓ This mini quiz is meant to serve only as an indicator of a few of the math skills that you are expected to know at the beginning of this course. Do not use these problems as a study guide thinking that they will adequately prepare you for the course.

✓ These example problems are merely representative of some of the most important concepts that are taught in the prerequisite courses.

✓ The course will offer little or no time for any type of review; it assumes that you are prepared to do the work the first day of class.
Below are some of the major topics covered in MATH 30

1. Discounts
   A. Single, chain, cash
   B. Markdown
   C. Promissory Notes

2. Payroll
   A. Wages
   B. Withholding taxes
   C. Social Security tax

3. Loan and deposit interest
   A. Simple
   B. Compound
   C. Amortization

4. Depreciation
   A. Straight line
   B. Double declining
   C. Sum of the years’ digits

To be successful studying the topics covered in this course, students should be appropriately prepared by: #1 Taking the prerequisite math course within the last three years with a passing grade of A or B, or within the last one year with a passing grade of C, or #2 placing into the course by the ASSET placement test.
Below is a sample of some skills you should have **BEFORE** entering MATH 30.

You **MAY** use a calculator

1. Write 70% as a fraction, reduced to lowest terms.

2. Solve each proportion:
   a) \( \frac{7}{9} = \frac{?}{3} \)
   b) \( \frac{2.8}{4} = \frac{11.2}{?} \)

3. Round to the nearest hundredth:
   a) 6.8481  
   b) 7.9950

4. Solve this word problem:
   A family’s income is $1200 for the month. It is spent as follows: 20% on food, 35% on rent, 17% on utilities, 8% on automobile, and the rest on miscellaneous expenses. What dollar amount is spent on miscellaneous expenses?

5. Solve:
   a) 50 is 20% of ?
   b) ?% of 60 is 90?
   c) 38% of 46 is ?

6. Write \( \frac{1}{2} \)% as a decimal.

7. Write 0.2% as a reduced fraction.

8. Evaluate:
   
   \( (50) (0.35) + (100) (0.46) + (50) (0.50) \)
ANSWERS

1. \( \frac{7}{10} \)

2. a) \( \frac{21}{9} \) or \( \frac{7}{3} \)      b) 16

3. a) 6.85   b) 8.00

4. $240

5. a) 250   b) 150%   c) 17.48

6. 0.005

7. \( \frac{1}{500} \)

8. 88.50

How many of these problems can you miss and still succeed in MATH 30?

Ideally, NONE.

These problems are just a sample of the larger number of skills which you should be familiar with BEFORE taking this course.

If some of these ideas are not familiar to you, you should consider enrolling in one of the prerequisite courses (MATH 10 or MATH 20).