

To Provost 3/23/06  
To Kolb 3/27/06

UWVCC 05-30  
Appr 3/7/06  
Senate Info  
3/28/06

## Undergraduate Distance Education Review Form

(Required for all courses taught by distance education for more than one-third of teaching contact hours.)

### Existing and Special Topics Course

Course: MATH100

Instructor(s) of Record: Yu-Ju Kuo

Phone: 7-3797

Email: yjkuo@iup.edu

#### Step One: Proposer

A. Provide a brief narrative rationale for each of the items, A1- A5.

See attachment.

1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?
2. How will each objective in the course be met using distance education technologies?
3. How will instructor-student and student-student, if applicable, interaction take place?
4. How will student achievement be evaluated?
5. How will academic honesty for tests and assignments be addressed?

B. Submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.

#### Step Two: Departmental/Dean Approval

Recommendation:  Positive (The objectives of this course can be met via distance education)

Negative

Gary Stewart  
Signature of Department Designee

11-18-05  
Date

Endorsed:

John D. Eck  
Signature of College Dean

11-28-05  
Date

DEC - 5 2005

Forward form and supporting materials to Liberal Studies Office for consideration by the University-wide Undergraduate Curriculum Committee. Dual-level courses also require review by the University-wide Graduate Committee for graduate-level section.

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**Step Three: University-wide Undergraduate Curriculum Committee Approval**

Recommendation:  Positive (The objectives of this course can be met via distance education)  
 Negative

Gail S. Schust      3/7/06  
Signature of Committee Co-Chair      Date

Forward form and supporting materials to the Provost within 30 calendar days after received by committee.

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**Step Four: Provost Approval**

Approved as distance education course       Rejected as distance education course

OP Samuel      \_\_\_\_\_  
Signature of Provost      Date

Forward form and supporting materials to Associate Provost.

## **I. Catalog Description**

**MATH 100 Intermediate Algebra**

**3 lecture hours  
0 lab hours  
3 credits  
(3c-01-3cr)**

**Note:** Students may not take MATH 100 after successfully completing MATH 105 or 110 or a calculus without written Mathematics Department chairperson approval.

A basic course in algebra including factoring, exponents and radicals, systems of linear equations, complex fractions, and inequalities. For those students who lack the basic algebra skills required in MATH 105 or 110. Will not meet Liberal Studies math requirements.

## **II. Course Objectives**

1. Students will learn the necessary algebra skills needed to study functions
2. Students will be able to simplify algebraic expressions;
3. Students will use polynomials, rational expressions, rational exponents and roots to solve problems;
4. Students will be able to factor polynomials and use the quadratic formula;
5. Students will be able to solve algebraic equations and inequalities;
6. Students will solve applied problems in business and science using algebra concepts;
7. Students will acquire the ability to read, write, and communicate mathematically;
8. Students will become proficient at using function notation.

## **III. Course Outline**

### **A. The Real Number System (4 hours)**

1. Whole Numbers, Integers, Rational and Irrational Numbers
2. Graphing on the Number Line
3. Interval Notation
4. Absolute Value
5. Equations and Inequalities
6. Arithmetic on Real Numbers
7. Properties of the Real Numbers

### **B. Linear Equations and Inequalities (One Variable) (5 hours)**

1. Linear Equations
2. Formulas and Applications
3. Linear Inequalities
4. Compound Inequalities
5. Absolute Value Inequalities

- C. **Linear Equations and Inequalities (Two Variables) (4 hours)**
  - 1. **Graphing Lines**
  - 2. **Slope of a Line**
  - 3. **Forms for the Equation of a Line**
  - 4. **Linear Inequalities and Their Graphs**
  - 5. **Introduction to Functions**
  
- D. **Systems of Two Linear Equations in Two Unknowns (2 hours)**
  - 1. **Graphical Solution**
  - 2. **Solution by Substitution**
  - 3. **Addition and Subtraction Method**
  
- E. **Polynomials (9 hours)**
  - 1. **Integral Exponents**
  - 2. **Exponent Rules**
  - 3. **Polynomial Functions**
  - 4. **Multiplying Binomials**
  - 5. **Basic Factoring and Special Factors**
  - 6. **Factoring Trinomials**
  - 7. **Solving Equations by Factoring**
  
- F. **Rational Expressions (6 hours)**
  - 1. **Rational Expressions and Functions and their Domains**
  - 2. **Multiplication and Division**
  - 3. **Addition and Subtraction**
  - 4. **Compound Fractions**
  - 5. **Division of Polynomials**
  - 6. **Solving Rational Equations**
  - 7. **Applications**
  
- G. **Radicals and Rational Exponents (5 hours)**
  - 1. **Radicals and their Domains**
  - 2. **Operations with Radicals**
  - 3. **Rational Exponents**
  - 4. **Product and Quotient Rules, Rationalizing**
  - 5. **Solving Radical Equations**
  
- H. **Quadratic Equations and Inequalities (4 hours)**
  - 1. **Solution of Equations by Factoring**
  - 2. **Solution of Equations by Completing the Square**
  - 3. **Solution by Quadratic Formula**
  - 4. **Quadratic Functions and their Graphs**
  - 5. **Applications**

This syllabus covers 39 hours, leaving 3 hours for testing.

#### **IV. Evaluation Methods**

The final grade for the course will be determined as follows:

50% Tests. Tests will include problems on basic competency and critical thinking.

20% Final Examination. The final examination will be comprehensive and cover both basic competency and critical thinking.

30% Homework, Quizzes, and Projects. These will cover textbook assignments and applications to business and economics.

Grades will be assigned as follows:

A: 90%-100%

B: 80%-89%

C: 70%-79%

D: 60-69%

F: 0%-59%

#### **V. Required Textbook**

Bittinger, Marvin L. and David J. Ellenbogen. Intermediate Algebra: Concepts and Applications. Boston: Addison Wesley, 2006.

#### **VI. Special Resource Requirements**

Some instructors may require students to purchase a graphing calculator.

#### **VII. Bibliography**

Bittinger, Marvin L. Intermediate Algebra. Boston: Addison Wesley, 2002

Committee on the Mathematical Sciences in the Year 2000. Everybody Counts: A Report to the Nation on the Future of Mathematics Education. Washington, DC : National Academy Press, 1989.

Connally, Eric, et al. Functions Modeling Change. New York: John Wiley & Sons, Inc., 2000.

Dugopolski, Mark. Intermediate Algebra, 6<sup>th</sup> ed. Boston: McGraw-Hill, Inc., 2006.

**A. Provide a brief narrative rationale for each of the items, A1- A5.**

1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?  
Dr. Kuo has been using her own webpages and WebCT for her courses since Fall 2000. She also developed a set of online-quizzes for this course in Fall 2004. She has a Ph.D. in computational mathematics and has taught different levels of mathematics courses since Fall 2000.
2. How will each objective in the course be met using distance education technologies?  
For objective 1-5, 6, and 8: Students will understand concepts of those topics through watching video and reading the text book. More importantly, they will gain those algebraic skills through completing online homework, and paper-pen homework. Selected problems in paper-pen homework will be graded in detail and returned to students so that students will be able to know where they made mistakes and how to correct them. "Show me how" feature in the online homework will also provide students with a step by step process to solve the problem.  
For objective 7: Through watching video, reading the textbook, and participating in the discussion board students will learn mathematical ideas in different formats. Through participating in the discussion board, students will learn how to communicate mathematically with other students and the instructor. Through taking notes and completing paper-pen work and exams, student will learn how to write mathematically.
3. How will instructor-student and student-student, if applicable, interaction take place?  
The instructor-student interaction will take place through discussion session as well as the submission and return of assignments. The student-student interaction will take place primarily through the discussion board.
4. How will student achievement be evaluated?  
Student achievement will be evaluated through notes, paper-pen homework, online-homework, online quizzes with turned-in work, participation on the discussion board, 2 exams, and the final exam. The instructor will also keep track of students' performance in future math courses. The course will be modified if there is evidence that students from this course perform worse than the students from regular classes.
5. How will academic honesty for tests and assignments be addressed?  
Each student will turn in paper-pen homework and the work for online quizzes every two weeks. At the end of semester, students will also turn in their notes for the semester. Academic honesty for assignments will be addressed through a large amount of hand-written assignments. For the two midterms and the final exam, students will need to arrange someone to proctor them. The qualified individuals or locations are testing centers in universities, librarians in the library, faculty or teachers in universities or schools. Once students find the proctor and set up the time, the proctor will receive the instructions and the exam before the time of the exam.

- B. Submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.**

**Instructor:** Yu-Ju Kuo  
**Email:** yjkuo@iup.edu

**Phone:** 724-357-3797

**Office:** STRGT 312

**Text:** Intermediate Algebra: Concepts and Application, by Bittinger and Ellenbogen, 7<sup>th</sup> ed., Pearson Addison-Wesley.  
ISBN: 0-321-42438-7

**Course website:** <http://www.coursecompass.com/ccindex.html>    **Course ID:** kuo27381

### Catalog Description

**Note:** Students may not take MATH 100 after successfully completing MATH 105 or 110 or a calculus without written Mathematics Department chairperson approval.

A basic course in algebra including factoring, exponents and radicals, systems of linear equations, complex fractions, and inequalities. For those students who lack the basic algebra skills required in MATH 105 or 110. Will not meet Liberal Studies math requirements.

### Course Objectives

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5. Students will be able to solve algebraic equations and inequalities;
6. Students will solve applied problems in business and science using algebra concepts;
7. Students will acquire the ability to read, write, and communicate mathematically;
8. Students will become proficient at using function notation.

**Student Resource:** Learning Center 203 Pratt Hall 724-357-2729

### Virtual Office Hours:

Office Hours will be hold through the chat room so that students have the opportunity to interact with the instructor instantly.

### Grading Criteria:

Point-Allocation		Grades	
Note/Previews	8%	A	90% - 100%
Discussion Board	7%	B	80% - 89.9%
Paper-pen Homework	15%	C	70% - 79.9%
On-line Homework	10%	D	55% - 69.9%
Online Quiz with turned-in work	10%	F	0%-54.9%
2 exams+ Final exam	50%		

**Schedule:**

Topics	Deadline for Assignments		
	Preview	On-line HW	On-line Quiz & Paper-pen HW
1.1-1.3	1/19	1/24	
1.4-1.6	1/26	1/31	1/29-2/2
2.1-2.3	2/2	2/7	
2.4-2.6	2/9	2/14	2/12-2/16
3.1-3.3	2/16	2/21	
3.8,4.1	2/23	2/28	Exam1 week (Feb. 28-Mar. 6)
4.2-4.4	3/2	3/7	
5.1-5.3	3/9	3/14	3/12-3/16
5.4-5.8	3/23	3/28	
6.1-6.3	3/30	4/4	4/2-4/6
6.4-6.7	4/6	4/11	
6.8,7.1-7.2	4/13	4/18	Exam2 week (Apr.18-Apr.24)
7.3-7.6	4/19	4/25	
8.1-8.3	4/26	5/3	5/1-5/5
Final Exam week 5/4-5/10			

**Paper-Pen Homework:**

1.1	20,26,30,36,42,48,56,62,80,88	5.4	10,16,18,28,34,36,60,78,86,108
1.2	12,22,26,42,52,58,64,106,116,120,128,136,148,156,164	5.5	12,16,22,32,40,54,62,72,90,100
1.3	2,16,24,32,36,44,50,62,72,90	5.6	18,20,32,42,44,58,62,66
1.4	2,6,8,16,20,24,28,36,44,48	5.7	10,20,26,32,38,40,60,82
1.5	18,20,26,36,40,48,50,56,60,62	5.8	8,12,26,34,42,54,58,62,66,90
1.6	22,26,30,36,42,48,58,60,78,80,82,94,102,108,120	6.1	16,24,30,34,46,52,56,60,63,70,78,82,96,102,110
2.1	8,12,24,34,50,52,58,66,70,72	6.2	6,12,18,22,26,30,38,44,62,80
2.2	14,16,20,22,34,46,48,50,56,64	6.3	4,10,14,22,32,62
2.3	10,16,26,40,56,60,66,72,74,86	6.4	12,18,20,22,26,36,48,54
2.4	18,26,34,36,44,52,62,68,70,74	6.5	4,8,22,30,50
2.5	16,22,32,40,50,52,66,84,102,108	6.6	8,14,22,38,44
2.6	8,10,12,14,18,55,50,56,62,66	6.7	10,14,18,24,40
3.1	10,12,24,32,36,42,48,50,66,68	6.8	6,8,20,28,34,52,56,58,68,74
3.2	10,18,24,30,40,46,48,58,62,68	7.1	16,30,32,40,60,66,76,88,98,100
3.3	16,20,22,28,34,38,62	7.2	26,28,36,48,62,66,68,72,78,98
3.8	12,20,28,30,42	7.3	8,16,26,32,38,42,48,60,70,76
4.1	2,6,12,28,40,44,48,54,62,68	7.4	12,26,30,38,40,42,44,52,58,74
4.2	14,20,28,32,46,48,54,64,78,80	7.5	8,10,16,26,34,40,42,58,60,62
4.3	10,20,30,36,40,46,54,64,70,84	7.6	8,16,20,36,52,68,70
4.4	12,20,36,46,54,60,62	8.1	8,12,16,26,30,34,48,52,66,74
5.1	14,18,28,34,40,48,54,56,60,70,88,92,94,96,116	8.2	10,16,18,28,38
5.2	14,20,28,32,34,36,40,46,52,54,66,70,76,78,80,	8.3	2,4,12,26,32
5.3	10,16,30,38,40,44,48,50,62,84		



**How to obtain the access code and the text book:**

You will need access to MyMathLab (the course web site) to complete homework and quizzes for class. You have the following two options.

1. Strongly recommended: Purchase the bundled new text book from the IUP book store which includes a hard cover text book and an access code for the course website.
2. You can purchase the text book and the access code separately. The text book can be purchased on many websites, such as [www.amazon.com](http://www.amazon.com). The access code can be purchased at [www.coursecompass.com](http://www.coursecompass.com). If you purchase a textbook and separately purchase the access code, you may end up paying slightly more than what you pay in option 1.

**How to access the course website:**

1. Use the access code to register in [www.coursecompass.com](http://www.coursecompass.com)
2. Select the button "Enroll in a new course" and then enter the course ID: kuo27381
3. Click the MATH100 and then enter the homepage of the course.
4. Follow the instructions on the announcement page to install all the necessary plug-ins.

**Instruction for Students****Every Week:**

1. Do the preview questions and write down unfamiliar terms, and any questions you have. You will have two attempts for each preview and the higher grade will be recorded.
2. For each week, a handout which itemizes the key terminologies and concepts will be prepared and posted on the course website. Print out the handout and use it to take notes.
3. Watch videos from the sessions for that week online and take notes as you would in the classroom. Then go back to review the questions that you wrote down in 1.
4. Read the sessions in the book for that week, revise your notes with more details, and again review the questions that you wrote down in 1. Keep in mind that your notes will be graded based on completeness and correctness.
5. While doing 2 and 3, write down any questions as you would in the classroom. If the questions aren't answered after watching videos and reading sessions, you can ask them on the discussion board or ask the instructor.
6. It's recommended that you do problems in the tracked homework session. This would help you to build up your study plan and find out what your weaknesses are.
7. Go into the online-homework session and practice every problem with the idea that you are taking a quiz in the classroom. Use the "show me how" button when you get stuck and then go back to finish a similar problem. All online homework is set up with unlimited attempts and unlimited time constraints. Be sure that you turn in all homework before the due date. The scratch paper for this portion will not be collected or graded. It is recommended that you keep your own work for the record.
8. Find the problems assigned for paper-pen homework. You can find those problems from either the hardcopy of the book at the end of each session or the PDF-file from each session in the course content area on the website. Write your answer for each problem clearly. If your handwriting cannot be understood by the grader, your grade for the homework will be considered as 0. Staple work from the same session together. The homework will be mailed to the instructor with the work from online quizzes every two weeks.

**Every two weeks:**

At the end of every two weeks, you will take an online quiz. The online quiz covers the material for the previous two weeks. Each quiz will allow only one attempt and must be completed within a specific time frame. Once you start the quiz, you will need to submit the quiz before the time expires. The quiz will be available for 5 days. Do not take it unless you are ready. Do not wait until the last minute either since the computer will cut the quiz off at the end of 5 days. You need to write down all the work and mail it in with your paper-pen homework for these two weeks.

**Exams: (two exams and one final exam)**

1. Find a testing center, a faculty member, or a librarian who is willing to proctor you. Make an appointment with the person at least a week before the exam week and provide the instructor the contact information for the proctor. A copy of exam will be faxed, mailed, or emailed to the proctor before your scheduled exam time.
2. The exam week will be assigned for each exam. Students can take the exam anytime during that week with the agreement of the proctor.
3. For the convenience of local students, the instructor will arrange a room and time during the exam week to hold the exam. If the students cannot take the exam during this time, other arrangements with the instructor are required.
4. Right after taking the final exam, the notes from the preview questions, watching videos, and reading books need to be mailed to the instructor. The notes must be ordered sequentially. The notes must be postmarked within two days of final exam date to be considered for full-credit. If the notes are postmarked after 2 days of the final exam date, the grade will be reduced 50% every extra day.

**Discussion board:**

Each week, discussion topics will be posted on the board. Each student is required to participate in the discussion board at least three times a week. Students are required to ask as well as answer questions on the discussion board.

**Instructions for turning in homework and work for on-line quiz:**

1. Put your name on the first page of each session and staple work from the same session together.
2. Put them in ascending order.
3. Number the pages of the work for the quiz and staple them together. Put this at the bottom of the homework.
4. The package should be postmarked within 24 hours after you take the on-line quiz.
5. During the exam week, the homework package should be postmarked within 24 hours of the next preview deadline. For instance, the homework for 3.1-3.3, 3.8, and 4.1 should be postmarked by Mar. 3.

**Note:**

1. It is recommended that you obtain a delivery confirmation when you mail your packages in case of lost mail.
2. It is recommended that you keep a copy of everything you turn in case of lost mail.

## **Instructions for the Proctor**

**Student Name:**

**Proctor Name:**

Please check off each of the following items:

Check the student's ID and calculator. Please circle the type of calculator that the student uses in this exam. The calculators allowed in the exam are scientific calculators: TI-83, TI-83+, and TI-84.

Ask the student to read the first page of the exam and then print and sign his/her name on it.

The time limit is two hours. Please write down the starting and the ending time.

Starting Time:

Ending Time:

The proctor signs at the bottom of this page and staples this page on the top of the exam.

Please mail it back using the return envelope provided?

**The Proctor's signature:**

**Date**

**Contact information:**

## Sample course:

### I. Complete Preview 1:

Test Test Overview

Questions 1 2 3 4 5 6 7 8 9 10 » Yu-Ju Kuo

Translate the phrase to mathematical language. Choose the correct translation from the choices below.

6 more than 15 times some number.

Choose the correct choice below.

A.  $90 + z$

B.  $6x + 15$

C.  $(15 + 6)x$

D.  $15x + 6$

Click to select your answer, then click Next Question or Previous Question.

Previous Question Next Question Submit Test

**Test Info**  
Time Limit: No Time Limit  
0 of 16 questions complete  
This question is worth 1 points

Test Test Overview

Questions 1 2 3 4 5 6 7 8 9 10 » Yu-Ju Kuo

Evaluate  $8xy + z$ , if  $x = 3$ ,  $y = 1$ , and  $z = 8$ .

If  $x = 3$ ,  $y = 1$ , and  $z = 8$ ,  $8xy + z = \square$ .  
(Simplify your answer. Type an integer or a decimal.)

Enter any number or expression in the edit field, then click Next Question or Previous Question.

Previous Question Next Question Submit Test

**Test Info**  
Time Limit: No Time Limit  
0 of 16 questions complete  
This question is worth 1 points

Determine any elements belonging to the set of natural numbers.

$$0, 7, \frac{15}{7}, \frac{25}{2}, \sqrt{3}, -10$$

UNDO

$\div$   
  $<$    $>$   
  $\frac{\square}{\square}$    $\frac{\square}{\square}$   
  $\times$   
 More ?

Type your choice(s):

Enter any number or expression in the edit field, then click Next Question or Previous Question.

Previous Question

Next Question

Submit Test

Test Info

Time Limit No Time Limit

0 of 16 questions complete

This question is worth 1 points

Name all of the following which are elements of the set of rational numbers.

$$0, 9, \frac{5}{7}, \frac{25}{2}, \sqrt{5}, -1$$

UNDO

$\div$   
  $<$    $>$   
  $\frac{\square}{\square}$    $\frac{\square}{\square}$   
  $\sqrt{\square}$   
 More ?

are elements of the set of rational numbers.

(Use commas to separate answers.)

Enter any number or expression in the edit field, then click Next Question or Previous Question.

Previous Question

Next Question

Submit Test

Test Info

Time Limit No Time Limit

0 of 16 questions complete

This question is worth 1 points

## II. Watch Video: 1.1



## III. Read the section in the book:

### 1.1

## Some Basics of Algebra

Algebraic Expressions and Their Use • Translating to Algebraic Expressions • Evaluating Algebraic Expressions • Sets of Numbers

The primary difference between algebra and arithmetic is the use of *variables*. In this section, we will see how variables can be used to represent various situations. We will also examine the different types of numbers that will be represented by variables throughout this text.

### Algebraic Expressions and Their Use

We are all familiar with expressions like

$$95 + 21, \quad 57 \times 34, \quad 9 - 4, \quad \text{and} \quad \frac{35}{71}.$$

In algebra, we use these as well as expressions like

$$x + 21, \quad l \cdot w, \quad 9 - s, \quad \text{and} \quad \frac{d}{t}.$$


A letter that can be any one of various numbers is called a **variable**. If a letter always represents a particular number that never changes, it is called a **constant**. Let  $d$  = the number of hours it takes the moon to orbit the earth. Then  $d$  is a constant. If  $a$  = the age of a baby chick, in minutes, then  $a$  is a variable since  $a$  changes as time passes.

An **algebraic expression** consists of variables, numbers, and operation signs. All of the expressions above are examples of algebraic expressions. When an equals sign is placed between two expressions, an **equation** is formed.

Algebraic expressions and equations arise frequently in problem-solving situations. Suppose, for example, that we want to determine by how much the number of DVD video copies has increased in North America from 2001 to

#### IV. Participate in Discussion Board:

COURSES > MATH100 > COMMUNICATIONS > DISCUSSION BOARD

 Add Forum

1 ▾ **Chap1**

Questions for Chap1

[Modify](#) [Remove](#)

No Messages

[OK](#)

#### V. Complete Online-Homework 1.1

**Homework HW1.1** [Homework Overview](#) [Back to Do Homework](#)

Exercises << 1 2 3 4 5 6 7 8 9 10 >> Yu-Ju Kuo

Translate to an algebraic expression.

8 less than 82 percent of some number

Choose the correct translation.

A.  $8 - 82x$

B.  $8 - 0.82x$

C.  $0.82x - 8$

D.  $0.74x$

Click to select your answer, then click Check Answer.

[Check Answer](#) [Clear Answer](#) [Submit Work](#)

**Show Me How**

[Help Me Solve This](#)

[View an Example](#)

[Textbook Pages](#)

[Ask My Instructor...](#)

[Print Homework](#)

Exercise score:  
0 of 1 pts

Homework Score:  
13.3% (2 of 15 pts)

Exercises

1 2 3 4 5 6 7 8 9 10

Yun-Ju Kuo

Translate to an algebraic expression.

8 less than 82 percent of some number

UNDO

• ÷

&lt; &gt;

 $\frac{\square}{\square}$   $\frac{\square}{\square}$ 

• ×

More ?

First, translate the expression '82 percent of some number'.

(Use  $x$  for some number. Type the percent as a decimal.)

Enter any number or expression in the blue-outlined box, then click Check Answer.

Check Answer

Back to Exercise

Show Me How

Help Me Solve This

View an Example

Textbook Pages

Ask My Instructor...

Print Homework

Exercise score:

0 of 1 pts

Homework Score:

13.3% (2 of 15 pts)

Submit Work

Exercises

1 2 3 4 5 6 7 8 9 10

Yun-Ju Kuo

Translate to an algebraic expression.

8 less than 82 percent of some number

UNDO

• ÷

&lt; &gt;

 $\frac{\square}{\square}$   $\frac{\square}{\square}$ 

• ×

More ?

First, translate the expression '82 percent of some number'.

4

(Use  $x$  for some number. Type the percent as a decimal.)**✘ Sorry, that's not correct.**

You want to subtract 8 from the expression that represents '82 percent of some number.'

Done

Enter any number or expression in the blue-outlined box, then click Check Answer.

Check Answer

Back to Exercise

Show Me How

Help Me Solve This

View an Example

Textbook Pages

Ask My Instructor...

Print Homework

Exercise score:

0 of 1 pts

Homework Score:

13.3% (2 of 15 pts)

Submit Work



Homework HW1.1 Homework Overview Back to Do Homework

Exercises 1 ✓ 2 3 4 5 6 7 8 9 10 >> Yu-Ju Kuo

Translate to an algebraic expression.

7 less than 30 percent of some number

Choose the correct translation.

A.  $7 - 30x$   
 B.  $7 - 0.3x$   
 C.  $0.23x$   
 D.  $0.3x - 7$

**Good job!**

Click to select your answer, then click Check Answer.

**Show Me How**

Exercise score:  
0 of 1 pts

Homework Score:  
13.3% (2 of 15 pts)

## VI. Complete Paper-pen homework from the book.

11

Exercise Set

**Concept Reinforcement** In each of Exercises 1–10, fill in the blank with the appropriate word or words.

1. A letter representing a specific number that never changes is called a(n) \_\_\_\_\_.
2. A letter that can be any one of a set of numbers is called a(n) \_\_\_\_\_.
3. In the expression  $7y$ , the multipliers 7 and  $y$  are called \_\_\_\_\_.
4. When all variables in a variable expression are replaced by numbers and a result is calculated, we say that we are \_\_\_\_\_ the expression.
5. When no grouping symbols, exponents, division, or multiplication appear, we subtract before we add, provided the subtraction appears to the \_\_\_\_\_ of any addition.
6. In  $a^b$ , the  $a$  is called the \_\_\_\_\_ and the  $b$  is called the \_\_\_\_\_.
7. A number that can be written in the form  $a/b$ , where  $a$  and  $b$  are integers (with  $b \neq 0$ ), is said to be a(n) \_\_\_\_\_ number.
8. A real number that cannot be written as a quotient of two integers is an example of a(n) \_\_\_\_\_ number.

17. Nine more than twice a number
18. Six less than half of a number
19. Eight more than ten percent of some number
20. Five less than six percent of some number
21. One less than the difference of two numbers
22. One more than the product of two numbers
23. Ninety miles per every four gallons of gas
24. One hundred words per every sixty seconds

*To the student and the instructor:* Throughout this text, selected exercises are marked with the icon . These "Aha!" exercises can be answered quite easily if the student pauses to inspect the exercise rather than proceed mechanically. This is done to discourage rote memorization. Some "Aha!" exercises are left unmarked to encourage students to always pause before working a problem.

*Evaluate each expression using the values provided.*

25.  $7x + y$ , for  $x = 3$  and  $y = 4$
26.  $6a - b$ , for  $a = 5$  and  $b = 3$
27.  $2c - 3b$ , for  $b = 2$  and  $c = 6$
28.  $3z + 2y$ , for  $y = 1$  and  $z = 6$

