

Self-Diagnostic Test Instructions

This instrument is a self-diagnostic test which will measure your own preparation for MAT 1033C. All topics in this diagnostic are pre-requisite knowledge that you will need to have in order to succeed in MAT 1033C.

Directions:

Part 1: Take a look at the Self- Diagnostic test below and rate with the appropriate symbols on how confident you feel that you could successfully complete these problems.

Symbols

I am confident that I could successfully complete the problem with no notes or review.



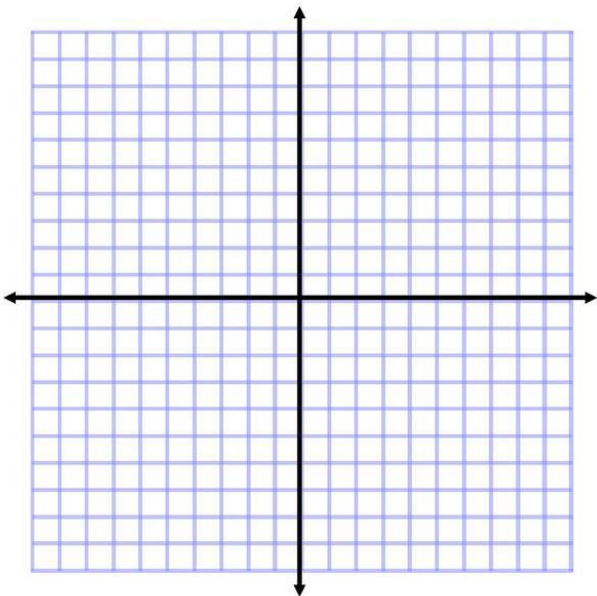
I may need to look up notes or review in order to successfully complete the problem.



I will need help from a professor in order to successfully complete the problem

Self-Diagnostic Test

1. Simplify the expression: $-3[5 + 2(-4 + 9)] + 15$
2. Simplify the arithmetic expression: $\frac{5}{12} + \frac{7}{30}$
3. Solve the equation: $7(x + 1) = -2(x - 4) + x$
4. Evaluate the expression $x^2 - yz + 2(x + y)$ for $x = -2$, $y = 4$, and $z = -1$.
5. Simplify the polynomial: $(x^2 + 5)(2x - 6) - (2x)(x^2 - 3x - 4)$
6. A television is on sale for \$900. If the sale price is 10% less than the regular price, what was the regular price?
7. Solve the equation $2x + \frac{3}{2}y - 1 = 4 + x$ for y , and express your answer in the slope-intercept form.
8. Factor the trinomial: $2x^2 - 11x + 5$
9. Find the x - and y -intercept of the linear equation $5x - 3y = -15$, and write your answers as ordered pairs.
10. Graph the line with a slope of $-\frac{2}{3}$ and the y -intercept at $(0, -2)$, and write the equation of this line in slope-intercept form.



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Part 2: Complete the Self- Diagnostic test above outside of class. Show your work on this paper or attach this page as a cover sheet. You may use any textbook, old notes, or online resources for assistance (no tutors). List any resources used for each problem.

Part 3: After completing the Self-Diagnostic test and checking your answers with the answer key provided by your instructor (during class), take a moment to reflect on how you solved these problems and answer the following questions:

- a) Did you need to review less than you had thought or more than you had thought?
- b) Did you need to review at all?
- c) What resources were most helpful to you?

You must accept responsibility for reviewing pre-requisite material needed to learn the subject matter. Your instructor will be able to offer helpful suggestions regarding pre-requisite material.

Student Signature

Date

Part 4: Now that you have graded your diagnostic, you're ready to develop skills that you are missing. Direct your Web browser to <http://valenciacollege.edu/learning-support/math/mathconnections.cfm> and begin working on those skills by downloading and printing worksheets. Then, bring those worksheets to 7-241 (Hands-On Math or Math Connections inside the Math Center) and work on them there so you can get help when needed. Below, you will find a list of which worksheets you should complete, based on the questions on the diagnostic that you got wrong.

1. Order of Operations

<http://valenciacollege.edu/learning-support/math/documents/1.9OrderofOps1.pdf>

2. Add/Subtract Unlike Fractions

<http://valenciacollege.edu/learning-support/math/documents/4.13ASFractLCD1.pdf>

3. Solve a Linear Equation in One Variable

<http://valenciacollege.edu/learning-support/math/documents/3.7CombiningLikeTermsinEquations1.pdf>

4. Evaluate an Algebraic Expression

<http://valenciacollege.edu/learning-support/math/documents/Evaluate1.pdf>

5. Add, Subtract, Multiply Polynomials

<http://valenciacollege.edu/learning-support/math/documents/3.3.28Addingandsubtractingpolynomials1.pdf>

<http://valenciacollege.edu/learning-support/math/documents/3.8.28MultiplyingPolynomials1.pdf>

6. Cost, Discount, Original Price Word Problems

<http://valenciacollege.edu/learning-support/math/documents/3.1.28DiscMarkup1.pdf>

7. Solve a Literal Equation (Solve an Equation for a Different Variable)

<http://valenciacollege.edu/learning-support/math/documents/2.2.28LiteralEquations1.pdf>

8. Factor a Trinomial of the Form $ax^2 + bx + c$

<http://valenciacollege.edu/learning-support/math/documents/4.17.28Factoranotone1.pdf>

9. Given a Linear Equation in Two Variables, Find the Intercepts

<http://valenciacollege.edu/learning-support/math/documents/4.3.28GraphUsingx-yIntercepts1.pdf>

10. Given the Slope and y-Intercepts of a Line, Write its Equation and Graph It

<http://valenciacollege.edu/learning-support/math/documents/4.4.28GraphingEquationsofLines-SlopeIntercept.pdf>

RECOMMENDATIONS FOR INSTRUCTORS:

1) Discuss with your Students Recognition Versus Knowing. Describe the difference between going over material enough that one can “recognize” the material as very familiar and prematurely conclude that it is known and understood, and really knowing and understanding it.

2) Discuss Winning Strategies.

- Schedule daily studying and homework time
- Make lists of things to accomplish during studying
- Put off pleasurable events until work is completed
- Review the class textbook/assignments before going to class
- Generate examples to apply the material
- Record information relating to study tasks (e.g., keeping a study log)
- Self-verbalize the steps to complete a given task
- Use chapter review questions to self test
- Use a study partner
- Review the items missed on the exam, including items guessed at
- Check work before handing in an assignment