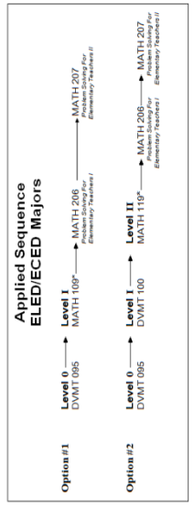
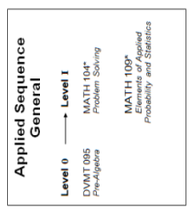
MATHEMATICS COURSE SEQUENCES





* Meets GEP Core Skills Math Requirement

ANSWERS

1.	(b)	11.	(a)
2.	(d)	12.	(e)
3.	(a)	13.	(d)
4.	(c)	14.	(b)
5.	(b)	15.	(c)
6.	(c)	16.	(e)
7.	(a)	17.	(d)
8.	(e)	18.	(a)
9.	(b)	19.	(e)
10.	(d)	20.	(a)

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Frostburg State University

MATHEMATICS PLACEMENT TEST (SAMPLE)

MATH PLACEMENT TEST

How is the Math Placement Test Used?

The purpose of FSU's Mathematics Placement Testing is to determine which math courses are appropriate for your skill level. You can neither pass nor fail this test. Your test results will help you and your academic advisor make decisions about the types of math-based courses you are prepared to take.

If you score below specified levels, you will be placed in appropriate courses or programs to help develop your skills and increase your academic success. Both you and your advisor will receive copies of your test scores. (Note: students may only take the placement test ***once****.)*

The required skill levels for enrolling in math-based courses at FSU have been identified. The courses that first-time math students generally take are shown on the Mathematics Course Sequences Chart found in this brochure. You may register for a class that matches your skill level or any course that is to the left of that level on the Mathematics Course Sequences Chart. The university catalog has more details about the math courses offered at FSU and their relationship to the General Education Program and major requirements.

What happens if you don't place into the MATH course that you need for your plan of study?

The advisor you meet at orientation will help you organize an appropriate plan of study so that you can make progress in your major. He or she will help you decide which math course, if any, to register for based on the results of your placement test. For instance, suppose that you need MATH 118 for your major but are at Skill Level I. As noted on the Mathematics Course Sequences Chart, you would need to pass DVMT 100 before you may take MATH 118.

What are DVMT 095 and 100?

DVMT 095 and DVMT 100 are developmental math courses that serve as prerequisites for other courses offered at FSU.

DVMT 095-Pre-Algebra Mathematics

- *Required of all students who place at Math Skill Level 0*
- *Worth 3 institutional credits (credits do not count toward graduation) and graded Pass/Fail*
- *A prerequisite for Level 1 math courses such as Math 104, 109, or DVMT 100*

A diagnostic test given to students enrolled in DVMT 095 during the first week of classes allows high scoring students to move up to a Level I course.

DVMT 100-Intermediate Algebra

- *Required for only those students who test at Math Skill Level I but wish to enroll in a Math Skill Level II course*
- *Worth 3 institutional credits (credits do not count toward graduation) and graded A/B/NC/F*
- *A prerequisite for Level II courses such as MATH 118 or 119*

How to Prepare For the Placement Test

You will be administered one of two Mathematics Placement Tests – the Basic or Standard Test. The Basic Test will be administered to students below a certain SAT score. This test consists of 40 questions divided into two parts: Arithmetic and Algebra I. The Standard Test consists of 50 questions divided into three parts: Algebra I, Algebra II, and Trigonometry.

We recommend that you review your high school algebra, practice with the sample questions found inside this pamphlet and review topics where necessary. You may bring your own calculator to use during the test. ***Cell phones and other mobile devices are prohibited.***

If you have questions contact:
FSU's PASS Office
301-687-4441

Sample Placement Test Questions

BASIC PART I

1. $27 - 81.054$

   a. 108.054 c. -55.946

   b. -54.054 d. 54.054

2. $6\frac{1}{4} + 4\frac{4}{5} =$

   a. $10\frac{1}{5}$ c. $11\frac{9}{20}$

   b. $10\frac{5}{9}$ d. $11\frac{1}{20}$

3. $2\frac{11}{12} \cdot 4\frac{4}{5} =$

   a. 14 c. $\frac{165}{288}$

   b. $8\frac{11}{15}$ d. $7\frac{43}{60}$

4. $25.3 - 6.05 =$

   a. 18.80 c. 19.25

   b. 18.98 d. 19.30

5. Sally won some money in a lottery. If she spent $\frac{1}{5}$ of the money for clothes and $\frac{1}{3}$ for a computer, what fraction of the money did she have left?

   a. $\frac{1}{4}$ c. $\frac{1}{15}$

   b. $\frac{7}{15}$ d. $\frac{8}{15}$

6. 7 is what percent of 16?

   a. 2.29 c. 43.75

   b. 229.00 d. 0.4375

BASIC PART II/STANDARD PART I

7. $3[6 - 7(5 - 9)]$

   a. 102 c. 36 e. -114

   b. 12 d. -66

8. If $\frac{5}{x} = \frac{3}{4}$, then $x =$

   a. $-\frac{20}{3}$ c. 6 e. $\frac{20}{3}$

   b. $-\frac{3}{20}$ d. $\frac{3}{20}$

9. The graph of $2x - 2y - 10 = 0$ crosses the $x - axis$ at $x =$

   a. 10 c. 0 e. -10

   b. 5 d. -5

10. The solutions of $3k^2 - 11k - 20 = 0$ are

    a. $4, -5$ c. $-2, 0$ e. $-10, \frac{2}{3}$

    b. $4, -\frac{5}{3}$ d. $-\frac{4}{3}, 5$

11. Simplify the following radical. Assume all variables represent positive real numbers. $\sqrt{9a^3b^6}$

    a. $3ab^3\sqrt{a}$ c. $3ab\sqrt{ab^3}$ e. $3ab$

    b. $6ab^3\sqrt{a}$ d. $3\sqrt{a^3b^6}$

12. $(-8p^2q)(-4p^4q^5)$

    a. $32p^6q^5$ c. $-32p^8q^5$ e. $32p^6q^6$

    b. $4p^{-4}q^{-2}$ d. $4p^5q^8$

STANDARD PART II

13. If $a(y - b) = by + c$ then, except when the denominator is zero, $y =$

    a. $\frac{(ab+c)}{(b-a)}$ c. $\frac{(a-c)}{(b-c)}$ e. $\frac{(-ab-c)}{b}$

    b. $\frac{(ab-c)}{(b-a)}$ d. $\frac{(-ab-c)}{(b-a)}$

14. A solution of $m^2 - 2m = -2$ is $m =$

    a. $i - 1$ c. 0 e. -1

    b. $1 - i$ d. 2

15. If $7^t = 3$ then $t =$

    a. $\frac{7}{3}$ c. $log_7(3)$ e. $\frac{3}{7}$

    b. $log_3(7)$ d. $log_{10}\left(\frac{3}{7}\right)$

16. Let $f(x) = x^2 - kx + 1$. If $f(2) = -3$, then $k =$

    a. 1 c. 0 e. 4

    b. -1 d. -4

17. The inequality $x^2 - 14x > 15$ is equivalent to

    a. $-3 < x < 5$ c. $3 < x < 5$ e. $x < 3 \text{ or } x > 5$

    b. $-1 < x < 15$ d. $x < -1 \text{ or } x > 15$

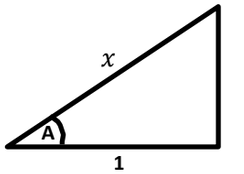
18. Which of the following best resembles the graph of $y = x^2 - 2x - 2$

    a.  c.  e. 

    b.  d. 

STANDARD PART III

19. In the triangle shown, $sin\ A =$



    a. x c. $\frac{1}{x}$ e. $\frac{\sqrt{x^2-1}}{x}$

    b. $\sqrt{x^2-1}$ d. $\frac{1+x^2}{x}$

20. $\sec A \sec A\ cot^2 A =$

    a. $csc^2 A$ c. $tan^2 A$ e. $sin^2 A$

    b. $sec^2 A$ d. $cot^2 A$