

Bethel University Calculus/Precalculus Math Placement Exam Follow-up Topics Study Sheet

Directions: Print this sheet and circle the questions that you answered incorrectly. These questions can be found by going to <http://bubblequest.its.bethel.edu/reports/student> and clicking on the "details" link following your exam score. On this new page, the questions you answered incorrectly correspond to the word "No" in the "Correct?" column. If you are enrolling in Precalculus, you should focus on questions 1-16, Calculus students should study all concepts.

You will want to review this material so you are ready for the skills test and also so that you can build upon these concepts in your course. Review information can be found in three textbooks that are listed in the chart below. All three texts are available on 2 hour reserve at the library circulation desk. *To check out these materials, go to the circulation desk in the library, and tell them the materials are listed under "AESC".*

Many of the topics are found in the precalculus text, ***Functions Modeling Change****, Connally, Hughes-Hallet, et al., Wiley Publisher. If you are in Precalculus, you can use your version of the text which is the 4th edition. The library has the 3rd edition of the text on reserve. Also in the library are algebra texts, ***Essential Mathematics & Intermediate Algebra*** by Pulsinelli & Hooper. When these texts are used, they are noted by an "E" or "I" in the chart below. All other references refer to the Precalculus text.

Question	Topic	Section/page no. from text
1	Calculating Percents	Chapter 9**E
2	The Pythagorean Theorem	pp. 580 - 582**E or p. 208**I
3	Solve Quadratic Equations	3 rd edition: Tools for Ch. 2, pp. 99 – 104 4 th edition: Skills Refresher for Ch. 3, pp. 120 - 125
4	Working with Algebraic Fractions (Simplification)	3 rd edition: Tools for Ch. 9, pp. 441 – 445 4 th edition: Skills Refresher for Ch. 11, pp. 489-493
5	Exponents	3 rd edition: Tools for Ch. 3, pp. 146 – 149 4 th edition: Skills Refresher for Ch. 4, pp. 175-179
6	Linear Functions, Finding Slope	Sec. 1.3
7	Working with Algebraic Fractions (Adding & Subtracting)	3 rd edition: Tools for Ch. 9, pp. 441 – 445 4 th edition: Skills Refresher for Ch. 11, pp. 489-493
8	Geometric Properties of Linear Functions	Sec. 1.5
9	Working with Algebraic Fractions (Simplification)	3 rd edition: Tools for Ch. 9, pp. 441 – 445 4 th edition: Skills Refresher for Ch. 11, pp. 489-493
10	Input and Output of Functions	Sec. 2.1
11	Adding & Subtracting Polynomials	Sec 15.1**E
12	Working with Algebraic Fractions (Complex Fractions)	3 rd edition: Tools for Ch. 9, pp. 441 – 445 4 th edition: Skills Refresher for Ch. 11, pp. 489-493
13	Working with Algebraic Fractions (Adding & Subtracting)	3 rd edition: Tools for Ch. 9, pp. 441 – 445 4 th edition: Skills Refresher for Ch. 11, pp. 489-493
14	Formulas for Linear Functions	Sec. 1.4
15	Linear Equations (Solving Systems of Linear Equations)	3 rd edition: Tools for Ch. 1, pp. 55 – 60 4 th edition: Skills Refresher for Ch. 1, pp. 61-65
16	Multiplying Polynomials	Sec. 3.4**I
17	Exponents	3 rd edition: Tools for Ch. 3, pp. 146 – 149 4 th edition: Skills Refresher for Ch. 4, pp. 175-178

Question	Topic	Section/page no. from text
18	Inequalities	Sec. 2.3**I
19	Exponents	3 rd edition: Tools for Ch. 3, pp. 146 – 149 4 th edition: Skills Refresher for Ch. 4, pp. 175-178
20	Piecewise Defined Functions	Sec. 2.3
21	Composition of Functions	3 rd edition: Sec. 8.1 4 th edition: Sec. 10.1
22	Inverse Functions	3 rd edition: Sec. 8.2 4 th edition: Sec. 10.2
23	Roots of Functions (x-intercepts or zeros)	3 rd edition: Sec. 2.6 4 th edition: Sec. 3.1
24	Composition of Fcns. (Evaluating Fcns. with Variables)	3 rd edition: Sec. 8.1 4 th edition: Sec. 10.1
25	Domain & Range	Sec. 2.2
26	Solving of Exponential Equations	pp. 751-753**I
27	Logarithms	3 rd edition: Sec. 4.1 4 th edition: Sec. 5.1
28	Logarithms	3 rd edition: Sec. 4.1 4 th edition: Sec. 5.1
29	Converting Between Degrees and Radians	3 rd edition: pp. 248-249 4 th edition: pp. 319 - 320
30	Trig. Identities, Definition of Sin, Cos, Tan, & Cot	3 rd edition: Sec. 6.2, 6.6 4 th edition: Sec. 7.2, 7.4
31	Graphs of Exponential & Logarithmic Functions	3 rd edition: Sec. 3.3, 4.3 4 th edition: Sec. 4.3, 5.3
32	Solving Equations Involving Trig. Functions	3 rd edition: Sec. 6.4, recall unit circle 4 th edition: Sec. 7.3, recall unit circle

*Many of the Algebra concepts may not be covered as in-depth as needed in this book. For additional help, you may want to refer to an Algebra II text.

**E: These topics are found in "Essential Mathematics".

**I: These topics are found in "Intermediate Algebra".

All others are found in "Functions Modeling Change".

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