

PRECALCULUS MPT MATERIALS

For Placement into Math 105

| Review Material | Location |
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| <p>1. Web site General MPT information.</p> <p>Sample questions and answers that highlight the most important topic areas covered in the Math Placement Test. Links to other sites with review material.</p> | <p>https://www.capilanou.ca/student-life/academic-support/additional-learning-support/math-placement-test-mpt/</p> <p>https://www.capilanou.ca/student-life/academic-support/additional-learning-support/math-placement-test-mpt/</p> |
| <p>2. Texts <i>Intermediate Algebra</i> by E. Hubbard and R. Robinson.</p> <p><i>Intermediate Algebra</i> by T. Carson and B. Jordan.</p> | <p>On reserve in Library under MPT. On reserve in Math Learning Centre (LB 126e).</p> <p>On reserve in Library under MPT.</p> |
| <p>3. Audio-Visual (and accompanying resources) <i>The Video Tutor</i> (DVD) by Ted Bentley. The videos in this series begin by covering much of the content of an intermediate algebra course.</p> <p><i>The Video Tutor Guide</i> by Ted Bentley. This is a companion workbook for <i>The Video Tutor</i>. It contains examples for students to work through to accompany each video segment of <i>The Video Tutor</i>.</p> | <p>Library A/V Department (QA 154.2 M858 1992)</p> <p>Library A/V Department (QA 154.2 M858 1992)</p> <p>Capilano University Bookstore</p> |

On the next page you will find a small selection of the online sample questions to help demonstrate the scope and level of difficulty of the Precalculus Math Placement Test.

PRECALCULUS MPT

SAMPLE QUESTIONS

Important Note: Calculators are not permitted when writing the Math Placement Test. In order to fully benefit from these practice problems, you should solve them without the aid of a calculator.

Introduction to Algebra Real number system; order of operations; equations; inequalities; applications.

True or false: $(a - b) - c = a - (b - c)$

Polynomials Adding, subtracting, multiplying and dividing polynomials; factoring.

Perform the polynomial division $(7 + x - 3x^3) \div (2x + 1)$ and give the quotient and the remainder.

Factor completely: $5y^4 - 18y^2 - 8$

Rational Expressions Multiplying, dividing, adding, subtracting and simplifying rational expressions.

Express in reduced form: $\frac{x^2 - x - 20}{x^2 + 7x + 12} \div \frac{x^2 - 10x + 25}{x^2 + 6x + 9}$

Radicals and Rational Exponents Expressing and simplifying roots in radical and rational exponent notation; rationalizing numerators and denominators; simplifying negative exponent forms.

Rewrite the expression so that it contains only positive exponents and simplify.

$$(3a^{-2} + b^{-2})^{-1}$$

Equations and Inequalities Solving linear and quadratic equations; linear inequalities; absolute value; applications.

Solve for x : $\frac{1}{x} - \frac{2}{x+2} + \frac{1}{x+3} = 0$

A rectangle has a perimeter of 100 cm and an area of 200 cm^2 . Find its dimensions.

Geometry Cartesian co-ordinate system; distance between points in the plane; equations of lines and circles; applications.

Determine the radius and centre of the circle defined by the equation $x^2 + y^2 - 5x + 2y = 0$.

Determine an equation for the line passing through the points $(7, 2)$ and $(-2, -1)$.

Express the area of the trapezoid in terms of the length x .

