BMTH010 Test 1 Formula Sheet

Chapter 2: Review of Basic Algebra

FORMULAS

Exponents

$a^n = a \times a \times a \times a \ldots \times a$ to n factors

Rules of Exponents

Rule	Rule in Exponential form
Product Rule	$(x^m)(x^n) = x^{m+n}$
Quotient Rule	$\dfrac{x^m}{x^n} = x^{m-n}$
Power of a power	$(x^m)^n = x^{mn}$
Power of a product	$(xy)^m = x^m y^m$
Power of a quotient	$\left(\dfrac{x}{y}\right)^m = \dfrac{x^m}{y^m}$
1 or −1 as an exponent	$x^1 = x$ $x^{-1} = \dfrac{1}{x}$
Negative exponent	$\left(\dfrac{x}{y}\right)^{-m} = \dfrac{y^m}{x^m}$
Zero (0) as an exponent	$x^0 = 1$