

Math 090 Formula Sheet

1. Exponent Laws

$$(a) a^0 = 1, \quad a \neq 0$$

$$(b) a^m \cdot a^n = a^{m+n}$$

$$(c) \frac{a^m}{a^n} = a^{m-n}$$

$$(d) (a^m)^n = a^{mn}$$

$$(e) (ab)^m = a^m \cdot b^m$$

$$(f) \left(\frac{a}{b}\right)^m = \frac{a^m}{b^m}$$

$$(g) a^{-m} = \frac{1}{a^m}$$

2. Factoring Formulas

$$(a) a^3 + b^3 = (a + b)(a^2 - ab + b^2)$$

$$(b) a^3 - b^3 = (a - b)(a^2 + ab + b^2)$$

3. Geometry Facts and Formulas

$$(a) \text{Area of a triangle} = \frac{1}{2}bh$$

$$(b) \text{Area of a rectangle} = lw$$

(c) The sum of the measures of the angles of any triangle is 180° .

(d) The perimeter is the sum of the lengths of the sides of a figure.

4. Financial Formula: sale price = original price - discount