

Mr. Chvatal's List of Famous Equations
Literal equations lesson

$$E = mc^2$$

Einstein's equation, where the amount of energy (E) contained in a mass (m) is equal to the mass multiplied by the square of the speed of light (c).

$$PV = nRT$$

The Ideal Gas Law, where P is absolute pressure, V is volume, n is amount of substance of gas, R is the gas constant and T is temperature.

$$a^2 + b^2 = c^2$$

Pythagorean Theorem, where, in a right triangle, the square of the hypotenuse (c) is equal to the sum of the squares of the legs (a and b).

$$\frac{a}{b} = \frac{c}{d}$$

The simple proportion.

$$y = mx + b$$

Point-slope form of a linear equation, where m is the slope and b is the y -intercept.

$$F = \frac{Gm_1m_2}{d^2}$$

Equation for gravity, where G is the gravitational constant, m_1 and m_2 are the masses of two objects at a distance d , and F is the force at which these two objects will attract each other.

$$m = \frac{\left(\frac{p}{1200}\right)\left(1 + \frac{p}{1200}\right)^N}{\left(1 + \frac{p}{1200}\right)^N - 1} L$$

Loan payment calculator, where L is the amount

borrowed, N is the length of the loan in months, p is the annual interest rate, and m is the monthly payment.