



Vocabulary – Mathematics cont'd

Quotient, multiple-digit numbers, the greatest common divisor, positive integers... All these terms have been presented in Unit 12. Now, it's time for more math!

► Activity 1: Which of the following is 1) an expression, 2) an equation, and 3) an inequality?

- a. $x + z = 10$, b. $x + z$, c. $x + z \geq 10$.

► Activity 2: What is an equation? Fill in the gaps in the following definition:

different / relationship / calculate / expressions / statement / sign / variable

A mathematical equation is a (1) _____ that contains two algebraic (2) _____ on both sides of an 'equal' (3) _____. It shows the (4) _____ of equality between the value/amount written on the left side (L.H.S.) with the value/amount written on the right side (R.H.S.). (L.H.S. = R.H.S.). We use equations in order to find the value of an unknown (5) _____. Equations are very important, as we can (6) _____ the same result many times with (7) _____ values each time.

► Activity 3: What are the parts in an equation?

Find: **a)** the operator, **b)** the variable, **c)** the constant, **d)** the coefficient, **e)** a term, and **f)** an expression in this equation: $3x + 10 = 30$. (**Hint:** In some cases, more than one answer is possible.)

► Activity 4: How do we read out an equation?

How can you read out the following equation? $V = \frac{R}{1}$ Choose from options a, b, and c below:

- a)** V is the same as 1 over R, **b)** V equals 1 over R, **c)** V equals 1 above R

► The correct answer is b, of course. Let's move on to more complicated equations now. Match the equations on the left with the way we read them on the right:

1. $R_1 V_1 = R_2 V_2$	a) capital R equals small r small v squared over small f
2. $\frac{1}{r} + \frac{1}{v} = \frac{1}{f}$	b) V is proportional to F subscript one F subscript two over R squared
3. $t = \frac{5Q}{8\pi P^4} (R^2 - \gamma^2)$	c) R subscript one V subscript one is equal to R subscript two V subscript two
4. $R = \frac{f}{rv^2}$	d) sigma over capital R small v equals V over capital Z small o capital E
5. $\frac{\sigma}{Rv} = \frac{ZOE}{V}$	e) one over r plus one over v equals one over f
6. $V = 2\pi R_c [R_c - \sqrt{(R_c^2 \frac{a^2}{8})}]$	f) tau is equal to five capital Q over eight pi capital R to the power of four, open bracket, capital R squared minus gamma squared, close bracket
7. $V \propto \frac{F_1 F_2}{R^2}$	g) capital V equals two pi capital R subscript small c, open square bracket capital R subscript small c minus square root open bracket capital R subscript small c squared over eight, close bracket, close square bracket

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