Math Symbols
(updated February 19, 2009)

∀  For all
∃  There exists
∃! There exists a unique
∃  Such that
∧  Logical And
∨  Logical Or
¬  negation (not)
∴  Therefore
≪  Much less than
≫  Much greater than
⇒  or →  Implies
⇔ or ↔ If and only if (iff)
∈  Element of
∉  Is not an element of
⊂  Belongs to
∪  Union
∩  Intersection
{ a, b, c }  Set notation
Ø  The empty set {}
(a, b)  Open interval, (ordered pair)
[a, b]  Closed interval
⟨a, b⟩  Vector
| a |  Absolute value
‖ v ‖  Magnitude, norm
Re ( ) , Im ( )  Real and imaginary parts of
⊥  Perpendicular, normal
∥  Parallel
n!  n – Factorial
ℕ  The set of natural numbers {1, 2, 3, …}
ℤ  The set of integer numbers {…, −2, −1, 0, 1, 2, …}
ℚ  The set of rational numbers \( \frac{p}{q} \mid p \in ℤ \land q \in ℤ \)
ℝ  The set of real numbers (real number line)
ℂ  The set of complex numbers
ℝn  n – dimensional Euclidian space (vectors)
ℝn×m  n by m space (matrices)
■  or  □  End of Proof (Q. E. D.)