**Useful math symbols and physics shorthand/definitions:**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Symbol | | Name | | Meaning | | | Example |
|  | | Therefore | |  | | |  |
|  | | Approximately equal to | |  | | |  |
|  | | Because | |  | | |  |
|  | | Uppercase Delta | | The difference in | | |  |
|  | | Congruent to symbol | | That on the left is exactly the same as that on the right; the right side is defined to mean that which is on the left | | |  |
|  | | Thus, or implies | |  | | |  |
|  | | Much less than or much greater than | | There is a significant difference in the opperands | | |  |
|  | | Initial symbol/\*naught | | The starting value or the value when an independent variable is 0 | | |  |
|  | | Momentum | | The measure of mothing of a moving body with units of | | |  |
|  | | Bullet | | A common alternative to used in physics so as not to confuse multiplication with the variable | | |  |
|  | | Linear Position | | Where something lies in space, usually along an x,y or x,y,z axis | | |  |
|  | | Velocity | | How fast something is moving **in a particular direction** | | |  |
|  | | Acceleration | | How fast velocity is changing/how much speed is increasing or decreasing **in a particular direction** | | |  |
|  | | Jerk | | How much acceleration is changing in a particular direction | | |  |
|  | | Snap | | How much Jerk is changing in a particular direction | | |  |
|  | | Crackle | | How much Snap is changing in a particular direction | | |  |
|  | | Pop | | How much Crackle is changing in a particular direction | | |  |
|  | | Rotational or angular position | | used to denote distance around an axis. These are the default variables for an angle | | |  |
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| Symbol | Name | | Def | | Unit | US equivalent | |
|  | Kilogram | | SI unit of mass | |  |  | |
|  | Meter | | SI unit of length, about | |  |  | |
|  | Second | | SI unit of time | |  |  | |
|  | Kelvin | | SI unit of temperature, it has no negative values | |  |  | |
|  | Newton | | SI unit of Force, defined as mass times acceleration with units | |  | pound | |
|  | Joule | | SI unit of energy, work and amount of heat | |  | BTU of heat  one US Therm = | |
|  | Watt | | SI unit of power defined as | |  | horsepower | |
|  | Pascal | | SI unit of pressure | |  |  | |
|  | Newton-meter per second | | SI unit of momentum | |  |  | |
|  | Newton-meter | | SI unit of torque | |  | Inch-pound or foot-pound  ft-lb | |
|  | Meter per second | | The SI unit of Velocity | |  |  | |
|  | Meter per second per second | | The SI unit of acceleration | |  |  | |
|  | Degree | | the usual unit for measuring angles | |  |  | |
|  | Minute | | of a degree in angle measurements | |  |  | |
|  | Second | | of a minute in angle measurements | |  |  | |
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