**Miscellaneous Symbols**

|  |  |
| --- | --- |
| + | Plus / add / addition / sum |
| - | Minus / subtract / take away |
| ÷ | Divide / division |
| x | Time / multiply / multiplication / product |
|  = | is equal to |
|  ≠ | is not equal to |
| $$≅$$ | is identical to / is congruent to |
|  ≈ | is approximately equal to |
|  ∝ | is proportional to |
|  < | is less than  |
|  ≤ | is less than or equal to |
|  > | is greater than |
|  ≥ | is greater than or equal to |
|  ∞ | is infinity |

**Operations**

|  |  |
| --- | --- |
| a + b | a plus b |
| a – b | a minus b |
| a ×b , ab | a multiplied by b |
| a ÷ b | a divided by b |
| a : b | the ratio of a to b |
| $$\sqrt{a}$$ | is the positive square root ofthe real number a |
| |a| | the modulus of real number a |
| x +1 | x plus 1 |
| x -1 | x minus 1 |
| x ± 1 | x plus or minus 1 |
| xy | x multiplied by y |
| $$\frac{x}{y}$$ | x over y |
| x = 5 | x is equal 5 / x is equal to 5 |
| x ≠ 5 | x is not equal to 5 |

**HOW TO READ**

|  |  |
| --- | --- |
| x > y | x is greater than y |
| x ≥ y | x is greater than or equal to y |
| x > y | x is less than y |
| x ≤ y | x is less than or equal to y |
| 0<x<1 | 0 is less than x is less than 1 |
| 0≤x≤1 | 0 is less than or equal to x is less than or equal to 1 |
| $$x^{2}$$ | x squared / x to the power 2 |
| $$x^{3}$$ | x cubed |
| $$x^{4}$$ | x to the fourth / x to the power 4 |
| $$x^{n}$$ | x to the nth / x to the power n |
| $$x^{-n}$$ | x to the power minus n |
| $$\sqrt{x}$$ | (square) root x / the square root of x |
| $$\sqrt[3]{x}$$ | cube root (of) x |
| $$\sqrt[4]{x}$$ | fourth root (of) x |
| $$\sqrt[n]{x}$$ | nth root (of) x |
| $$(x+y)^{2}$$ | x plus y all squared |

**HOW TO READ**

|  |  |
| --- | --- |
| = | Equal to |
| > | is more than / is greater than |
| < | is less than |
| ≥ | is more than or equal to /is greater than or equal to |
| ≤ | is less than or equal to |
| $$3^{2}$$ | Square of 3 / 3 to the power of 2 |
| $$4^{3}$$ | Cube of 4 / 4 to the power of 3 |
| $$\sqrt{9}$$ | Square root of 9 |
| $$\sqrt[3]{8}$$ | Cube root of 8 |
| $$\frac{4}{5}$$ | 4 over 5 / 4 divide by 5 |
| $$1\frac{2}{3}$$ | 1 whole , 2 over 3 / 1 whole two-thirds |
| $$\frac{1}{2}$$ | 1 over 2 / half |
| $$\frac{1}{3}$$ | 1 over 3 / one-thirds |
| $$\frac{1}{4}$$ | 1 over 4 / one-quarter |
| $$\frac{3}{4}$$ | 3 over 4 / three-quarters |
| $$1\frac{1}{2}$$ | Mixed number fraction |
| $$\frac{14}{5}$$ | Improper fraction |
| P(a 9) | Probability of getting a 9 |
| P(red) | Probability of getting a red |
| P(not blue) | Probability of not getting a blue |
| P(2) + P(5) | Probability of getting 2 plus Probability of getting 5 |
| $$\overbar{OA}$$ | OA / the length of the segment OA |
| $$\vec{OA}$$ | OA / vector OA |