**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 |
|  | is the positive square root of  the 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 |
|  | 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 squared / x to the power 2 |
|  | x cubed |
|  | x to the fourth / x to the power 4 |
|  | x to the nth / x to the power n |
|  | x to the power minus n |
|  | (square) root x / the square root of x |
|  | cube root (of) x |
|  | fourth root (of) x |
|  | nth root (of) x |
|  | 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 |
|  | Square of 3 / 3 to the power of 2 |
|  | Cube of 4 / 4 to the power of 3 |
|  | Square root of 9 |
|  | Cube root of 8 |
|  | 4 over 5 / 4 divide by 5 |
|  | 1 whole , 2 over 3 /  1 whole two-thirds |
|  | 1 over 2 / half |
|  | 1 over 3 / one-thirds |
|  | 1 over 4 / one-quarter |
|  | 3 over 4 / three-quarters |
|  | Mixed number fraction |
|  | 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 |
|  | OA / the length of the segment OA |
|  | OA / vector OA |