# College Algebra Formulas Tests – Use This to Study

|  |  |  |
| --- | --- | --- |
| Positive | Zero | Negative |
| becomes  or  (drop) (drop/sign flip) | becomes | has |

For inequalities involving absolute value:

…**positive**, rewrite as a compound or combined inequality without absolute value bars (see examples below)

|  |  |  |
| --- | --- | --- |
| >  or | becomes  or  (drop) (drop/double sign flip) | becomes  or  (drop) (drop/double sign flip) |
| <  or | becomes the combined inequality | becomes the combined inequality |

…**zero**, rewrite as an equality or inequality, or state the solution as “All Real Numbers” or “No Solution” (see examples below)

|  |  |  |
| --- | --- | --- |
| >  or | becomes the inequality | has the solution |
| <  or | has | becomes the equality |

…**negative**, state the solution as “All Real Numbers” or “No Solution” (see examples below)

|  |  |  |
| --- | --- | --- |
| >  or | has the solution | has the solution |
| <  or | has | has |

Some equation forms of a line:

Slope-Intercept Form Point-Slope Form Standard/General Form

Some equation forms of a circle:

Standard Form General Form

The average rate of change of a function from to is

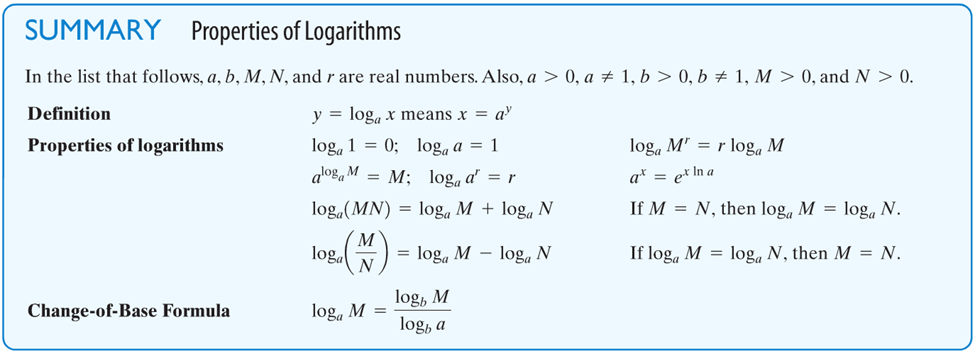
Given a line passing through points and , the slope of the line is as long as

Some equation forms of a parabola:

Vertex Form Standard Form

, with vertex

The Law of Exponents:

Given with : If , then .

The compound interest formula states that

The continuously compounded interest formula states that

The exponential law states that an amount varies with time according to the function As long as the start time is 0, the value of can be determined using the adder and either the multiplier or the divider :

or