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COMP 354-BB

**Transcendental function:** xy

The transcendental function xy is an exponential function where the variable ‘x’ represents the base and the variable ‘y’ represents the exponent. In this project, both x and y will be inputted a real variable value which can take the form of a simple real constant or an expression.

For exponential functions, the domain will span over all real numbers. As for the range, it will also do the same except for the value ‘0’. As a matter of fact, all exponential functions can only approach infinitely closer to ‘0’ but will never reach it.

**Glossary:**

Base: The base is the number that is being multiplied by itself.

Power: The exponent, or power, tells how many times to use the base as a in the multiplication.

Domain: Complete set of possible values of the independent variable

Range: Complete set of all possible resulting values of the dependent variable after we have substituted the domain.

**References:**

<http://www.montereyinstitute.org/courses/DevelopmentalMath/COURSE_TEXT_RESOURCE/>

U01\_L5\_T1\_text\_final.html

https://www.intmath.com/functions-and-graphs/2a-domain-and-range.php