PRECALCULUS IN REAL LIFE

For this project, you will be researching, selecting, showing, and explaining examples of real life applications of some of the math topics we've studied. The topics you are to use are listed below. You will submit your completed project by Webmail by the end of the semester.

TOPICS:

- ✓ Direct Variation
- ✓ Inverse Variation
- ✓ Parabola
- ✓ Ellipse
- ✓ Exponential Increase
- ✓ Exponential Decrease
- ✓ Logarithms
- ✓ Arithmetic Sequence
- ✓ Geometric Sequence
- ✓ Fibonacci Sequence
- ✓ Sine Wave

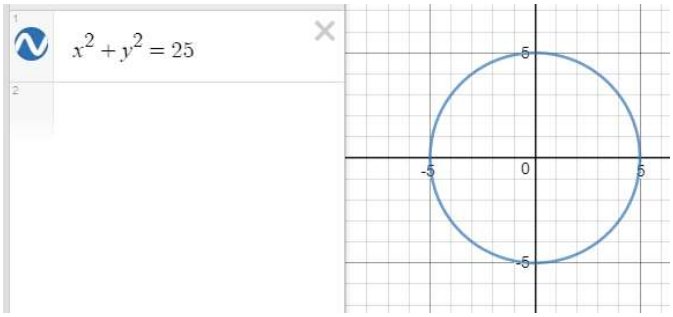
For <u>each</u> topic on the list you will include:

- ➢ A diagram or graph of the math topic with a brief description of that math concept in your own words.
- ➢ At least one picture, with descriptive captions, that represents the real life example you've chosen for that math concept.
- ➢ A brief description in your own words of how the real life example you've chosen represents the math concept.
- ➢ A list of the source link(s) you used for your information and ideas.

See the next page for an example. The project template gives you a set up you can use to add your diagrams, pictures, descriptions, and sources list.

CIRCLE

Diagram of the Math Topic:



Description of the Math Topic:

A circle is a type of conic section in which all points are the same distance from the center.

The In Real Life Example Illustration – A Particle Accelerator

Map of the Large Hadron Collider at CERN; The collider beam pipe in the tunnel

The In Real Life Example Description:

Circles are seen in architecture, design, and industry. The Large Hadron Collider, the world's largest particle accelerator, is an example of using a circle in science. Atomic particles are accelerated around a circular path in the beam pipes until they reach speeds that they can collide with each other. The results of these collisions have helped our understanding of atomic particles and physics.

Source(s):

https://www.smithsonianmag.com/travel/world-full-circles-180954529/

https://en.wikipedia.org/wiki/Large_Hadron_Collider