

## Trigonometry Quiz

Find the area of a triangular bridge arc, when one side is 12 and another side is 18 with a cosine angle of 32 degrees.

Fred says that "Sine can never be 1", Greg says "Sine can be -1" and Bill says that "Sine can be any number." Who has the most accurate statement out this group of three and how would you write it to be even more accurate?

Use sine rule to find angle A for a solar panel on a house when side A is 14m and side B is 17m.

List whether tan, sine and cosine are positive or negative in the quadrants shown.

	1 <sup>st</sup> quadrant	2 <sup>nd</sup> quadrant	4 <sup>th</sup> quadrant
Sine			
Cosine			
Tangent			

A boat has a wire anchor that forms a hypotenuse of a right angled triangle with the bottom of the ocean. The hypotenuse is 19m and the anchor is 10 m in front of the boat (adjacent side). What is the height and the angle of the opposite side?

Label a triangle with the following terminology: opposite, adjacent, hypotenuse, theta angle

A pizza has been cut into eight triangular pieces and each triangle has the same area except for one piece that has 1.1x the area. An average pizza shape has a radius of approximately 12cm and an angle of 25 degrees at the tip. How large is the area of the pizza?

Convert the following from degrees to radians:

20

60

180

Convert the following from radians to degrees:

2

4

5

A radian is 12m for a duck pond in the middle of the city. What would be the circumference of the duck pond?

When is sine equal to 1 and cosine equal to 0?

I traveled 25km true West and 10km true South. What bearing am I at?

A candy bar is arranged into triangular pieces, using cosine rule, deduce an angle when we know that side a is 2cm, side b is 3cm and side c is 2.5cm?