Answer on Question #47257 – Math – Trigonometry

Find the value of cos30.0

0.8599

0.9833

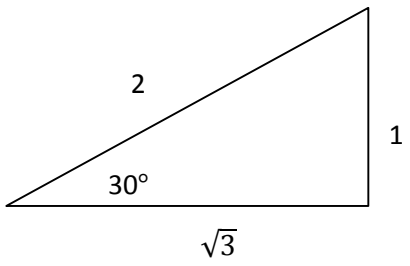
0.8581

0.5

Solution:

The cosine of an angle is defined by the horizontal distance of a point as it rotates around the unit circle measured from a vertical line through the center of the circle. It too must be in the range -1 to 1.

We also can consider the triangle to find the value of $\cos 30°$. We apply the theorem for a 30°-60°-90° triangle. The sides of this triangle are always in the ratio $1 : 2 : \sqrt{3}$. So, we can represent the triangle with sides in noted above ratio.



Base on the figure we can note the cosine of angle; it is the ratio of the adjacent side to the hypotenuse. Therefore,

$$\cos 30° = \frac{\sqrt{3}}{2} = \frac{1.732051}{2} \approx 0.8660254$$

Thus we can write that $\cos 30° \approx 0.866$.

Cosine of 30 radians is approximately equal to 0.154.