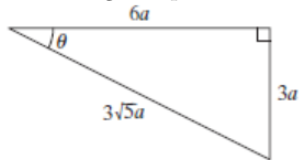
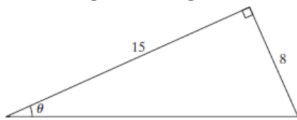


5.1, #100: A circular cheesecake 9 in. in diameter is cut into a slice with a 20° angle. Find the area of the slice and round to the nearest tenth of a square inch.

5.2, #14b: Find the exact values of the six trigonometric functions for the given angle θ in the triangle depicted below.



5.2, #16: Use the Pythagorean Theorem to find the length of the missing side. Then, find the exact values of the six trigonometric functions for the given angle θ .



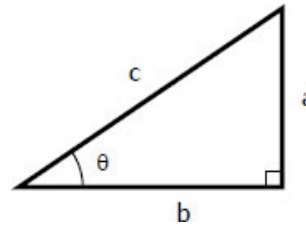
5.2, #29: If $\tan \theta = \frac{\sqrt{15}}{9}$ and θ is an acute angle, find the values of the other 5 trig functions at θ .

5.2, #58,60: Given the function value, find a cofunction of another angle with the same value.

(a). $\sin 15^\circ = \frac{\sqrt{6}-\sqrt{2}}{4}$.

(b). $\cot \frac{\pi}{6} = \sqrt{3}$.

State and prove the Pythagorean Identities for Trig Functions:



5.2, #42,44,46:

(a). Given $\sin \theta = \frac{8}{17}$, find the value of $\cos \theta$.

(b). Given $\csc \theta = \frac{41}{40}$, find the value of $\cot \theta$.

(c). Given $\sec \theta = \frac{37}{35}$, find the value of $\tan \theta$.

5.2, #76: Given that $\cos \frac{\pi}{12} = \frac{\sqrt{2}+\sqrt{6}}{4}$, give the exact values of the following:

(a). $\sin \frac{5\pi}{12}$

(b). $\sin \frac{\pi}{12}$

(c). $\sec \frac{\pi}{12}$