

Practice Problems in Trigonometry

Convert the following angles to radian measures.

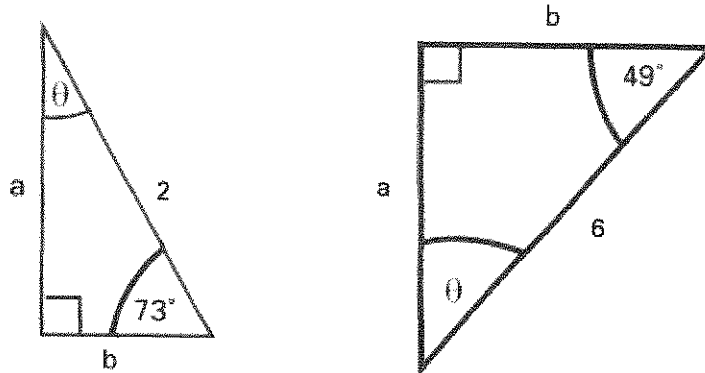
1. 60°
2. 53°
3. 37°

Find the sine, cosine and tangent values of the following angles

4. $\sin 60^\circ$
5. $\cos 60^\circ$
6. $\tan 60^\circ$
7. $\sin 53^\circ$
8. $\cos 53^\circ$
9. $\tan 53^\circ$
10. $\sin 53^\circ$
11. $\cos 53^\circ$
12. $\tan 53^\circ$

Angle θ	$\sin \theta$	$\cos \theta$	$\tan \theta$
60°			
53°			
37°			

Use the figure shown to fill in the following table.



Triangle A		Triangle B	
Triangle	a	b	θ
A			
B			

13. One acute angle of a right triangle is 20° . The length of the hypotenuse is 6 cm. Find the lengths of the other two sides of the triangle.
14. A car is traveling northeast (45° N of E). If the car traveled a total distance of 42.42 km, how far north did it travel? How far east?
15. Melissa left her house and jogged a distance of 12 blocks due east, then 15 blocks due north before stopping at her favorite snack bar for a fruit smoothie. How far, in a straight line, was she from her house when she stopped? What angle does that straight line distance make from due east?
16. To find the height of a tall building, a physics student steps 75 paces (each 1 meter) from the base of the building. Using a ruler at arm's length (1 meter), the student finds that at this distance, the building appears to be 50 centimeters high as compared to the ruler. Determine the approximate height of the building.