

Trigonometry 2.1

Algebra 2

Convert the angle measures in degree to radians.

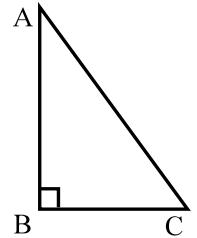
Convert the angle measures in radians to degrees.

- 1) 45° 2) 240° 3) 165°

- 4) $\frac{11\pi}{8} \text{ rad}$ 5) $\frac{7\pi}{3} \text{ rad}$ 6) $\frac{9\pi}{4} \text{ rad}$

Find the trigonometric ratios using the information given. Use the figure at the right.

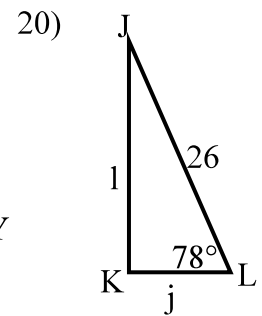
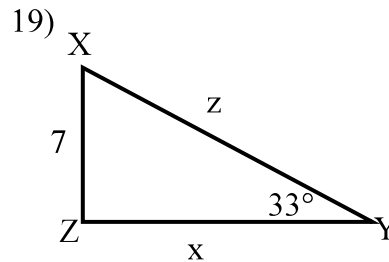
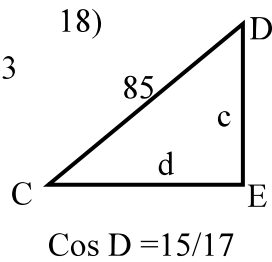
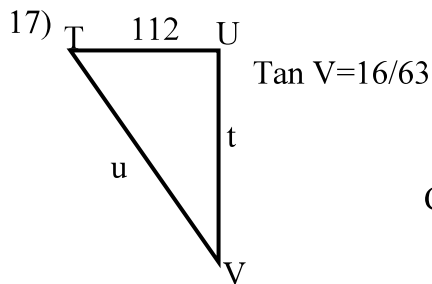
- 7) $\sin C = 45/51$ $\cos A =$ $m\angle A =$ $m\angle C =$
 $\cos C =$



Give the indicated trigonometric ratio as a fraction and to four decimal places.

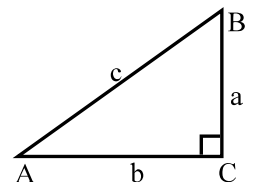
- 8) $\tan 60^\circ$ 9) $\sin 30^\circ$ 10) $\cos 45^\circ$
 11) $\sin 45^\circ$ 12) $\cos 30^\circ$ 13) $\tan 30^\circ$
 14) $\cos 60^\circ$ 15) $\tan 45^\circ$ 16) $\sin 60^\circ$

Use the information given to solve the following triangles.



Use the given information to find the measures of the acute angles. (Use $\triangle ABC$.)

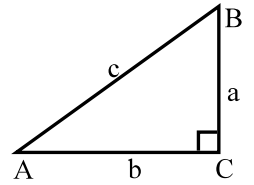
- 21) $a = 12, b = 21$ 22) $a = 13, c = 29$



Solve $\triangle ABC$ at the right using the information given in each problem.

21) $B = 61^\circ$, $b = 42$

22) $A = 34^\circ$, $c = 26$



Draw each angle on the coordinate plane. Give each trigonometric ratio as a fraction and to four decimal places.

23) $\sin 30^\circ$

24) $\cos 45^\circ$

25) $\tan 60^\circ$

26) $\sin 0^\circ$

27) $\cos 135^\circ$

28) $\tan 210^\circ$

29) $\sin 300^\circ$

30) $\cos 90^\circ$

31) $\tan \frac{\pi}{4} \text{ rad}$

32) $\cos \frac{4\pi}{3}$

33) $\sin -45^\circ$

34) $\tan 180^\circ$