

Trigonometry  
Alg 2

Convert the angle measures in degree to radians.

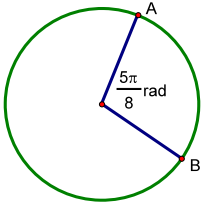
- 1)  $105^\circ$       2)  $245^\circ$       3)  $20^\circ$       4)  $315^\circ$       5)  $330^\circ$

Convert the angle measures in radians to degrees.

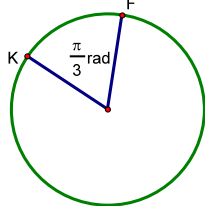
- 6)  $\frac{5\pi}{3} \text{ rad}$       7)  $\frac{11\pi}{8} \text{ rad}$       8)  $\frac{\pi}{6} \text{ rad}$       9)  $\frac{7\pi}{4} \text{ rad}$       10)  $\frac{13\pi}{12} \text{ rad}$

Find the length of minor arc AB using a proportion.

11)  $C = 54 \text{ m}$

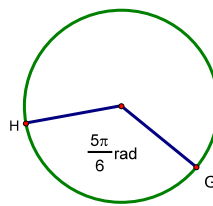


12)  $C = 112 \text{ cm}$

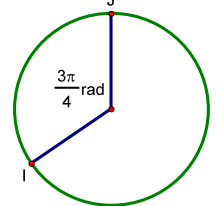


Find the area of the sector using a proportion.

13)  $A = 65 \text{ ft}^2$



14)  $A = 235 \text{ m}^2$



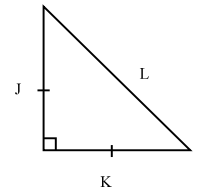
Given the length of one side of the 45-45-90 triangle at the right find the other two sides to the nearest tenth..

15)  $J = 7$

16)  $K = 11\sqrt{2}$

17)  $L = 8\sqrt{2}$

18)  $L = 26$



Given the length of one side of the 30-60-90 triangle at the right find the other sides to the nearest tenth.

19)  $U = 5$

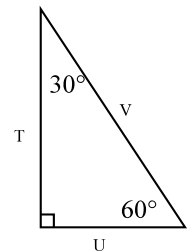
20)  $U = 9\sqrt{3}$

21)  $V = 38$

22)  $T = 14\sqrt{3}$

23)  $T = 22$

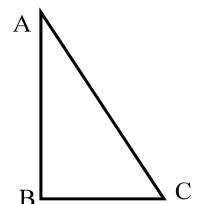
24)  $V = 12\sqrt{3}$



In the figure at the right the ratio  $\frac{\text{Opposite } \angle A}{\text{Hypotenuse}} = \frac{5}{13}$ .

25)  $BC = 35$ , find  $AB$  and  $AC$ .

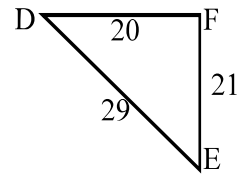
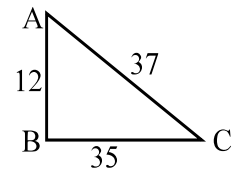
26)  $AB = 52$ , find  $BC$  and  $AC$ .



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

27)  $\sin \angle C$       28)  $\tan \angle F$       29)  $\cos \angle D$       30)  $\tan \angle A$

31)  $\sin \angle E$       32)  $\cos \angle D$       33)  $\sin \angle A$       34)  $\cos \angle C$



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

35)  $\sin 30^\circ$       36)  $\sin 45^\circ$       37)  $\sin 60^\circ$

38)  $\cos 30^\circ$       39)  $\cos 45^\circ$       40)  $\cos 60^\circ$

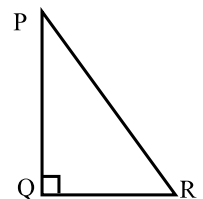
41)  $\tan 30^\circ$       42)  $\tan 45^\circ$       43)  $\tan 60^\circ$

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

44)  $\sin \angle P = 3/5$        $\cos \angle R =$        $\tan \angle P =$

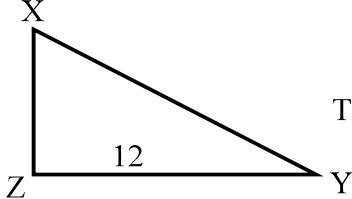
45)  $\tan \angle P = 2/6$        $\sin \angle P =$        $\tan \angle R =$

46)  $\tan \angle R = 15/8$        $\tan \angle P =$        $\sin \angle P =$

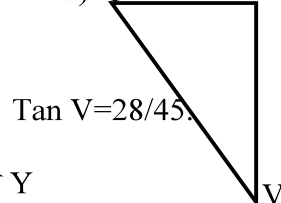


Use the information given to find the lengths of the missing sides in the triangles below.

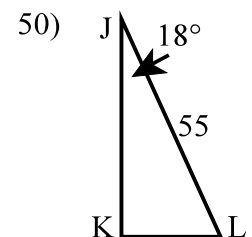
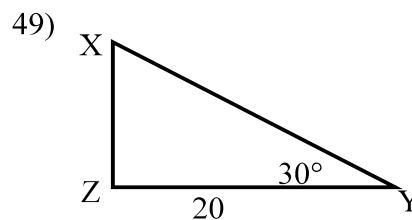
47)  $\sin X = 4/5$ .



48) TU = 56



$\tan V = 28/45$



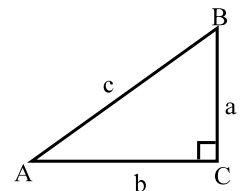
Use the given information to find the measures of angles A and B.

51)  $a = 12, c = 20$

52)  $b = 24, c = 26$

53)  $a = 14, b = 19$

54)  $b = 21, c = 28$



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

55)  $A = 20^\circ, a = 15$

56)  $A = 38^\circ, b = 23$

57)  $B = 50^\circ, a = 18$