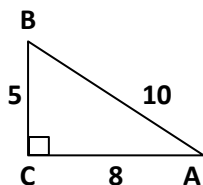


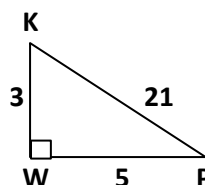
Trigonometric Ratios Assignment

Find the value of each ratio.

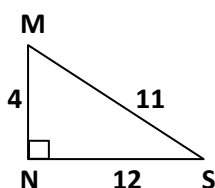
1. $\sin \angle A = ?$



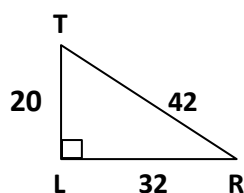
2. $\cos \angle K = ?$



3. $\tan \angle M = ?$



4. $\cot \angle R = ?$



Use your calculator to calculate the following (correct to 2 decimal places).

5. $\sin 28^\circ =$

6. $\cos 65^\circ =$

7. $\tan 84^\circ =$

8. $\sin 48^\circ =$

Use your calculator to calculate the following.

9. $\sin \angle B = 0,6428$

10. $\cos \angle K = 0,4226$

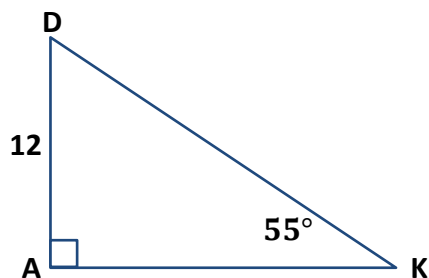
11. $\tan \angle P = 1,4281$

12. $\sin \angle Q = 0,9848$

Trigonometric Ratios Assignment

Use trigonometric ratios and Pythagorean Theorem to find the values of missing sides and angles.

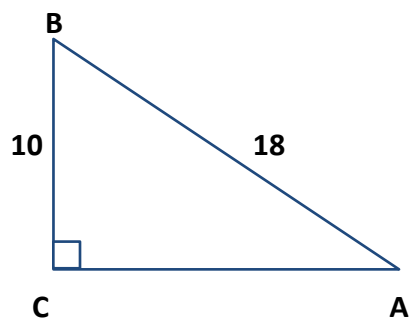
13.



$$\begin{aligned}\overline{DA} &= 12 \\ \overline{AK} &=? \\ \overline{DK} &=?\end{aligned}$$

$$\begin{aligned}\angle K &= 55^\circ \\ \angle D &=?\end{aligned}$$

14.



$$\begin{aligned}\overline{BC} &= 10 \\ \overline{BA} &= 18 \\ \overline{CA} &=?\end{aligned}$$

$$\begin{aligned}\angle A &=? \\ \angle B &=?\end{aligned}$$

Find the value of α that makes each statement true.

15. $\sin \alpha = \cos(\alpha - 24^\circ)$

16. $\cos \alpha = \sin(\alpha - 40^\circ)$

Trigonometric Ratios Assignment

WORD PROBLEMS

17. Mary walked 10 miles at an angle of 19° north of due east. To the nearest tenth of a mile, how far east, x , is Mary from his starting point?
18. Students are trying to determine the height of the flagpole. They have measured out a horizontal distance of 50 feet from the flagpole and site the top of it at an angle of elevation of 57° . What is the height, h , of the flagpole?
19. A building 40 feet high east a shadow 68 feet long. Find measure of the angle of elevation of the sun.
20. Sara is looking up at a plane that is flying 1000 feet above the ground. Sara is 1600 feet from the plane. What angle of elevation is Sara looked at the plane?