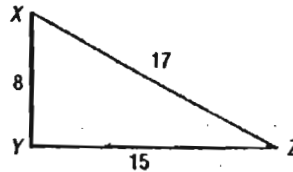


1. For the triangle at the right, find the sine, cosine, and tangent of each acute angle.



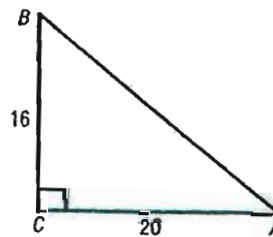
Find the value of the following ratios to four decimal places. Use a calculator or trigonometric tables.

2. $\sin 58^\circ$ 3. $\tan 86^\circ$ 4. $\cos 42^\circ$
 5. $\tan 4^\circ$ 6. $\cos 75^\circ$ 7. $\sin 15^\circ$

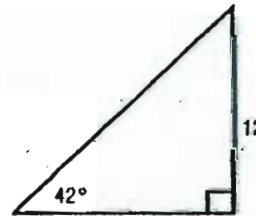
Find the measurement of each angle to the nearest degree. Use a calculator or trigonometric tables.

8. $\tan B = 3.2709$ 9. $\cos X = 0.9613$ 10. $\sin A = 0.9700$
 11. $\cos C = 0.1045$ 12. $\sin Y = 0.3101$ 13. $\tan Z = 0.5543$

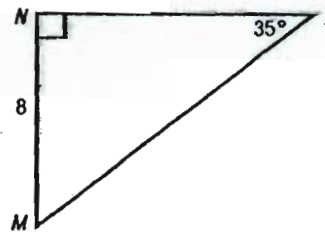
14. Find the degree measure of $\angle A$ to the nearest degree.



15. Find the measure of the hypotenuse to the nearest tenth.



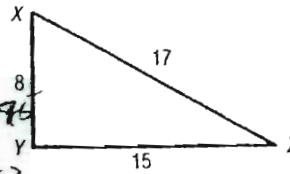
16. Find $m\angle X$ to the nearest degree, and find LM and LN to the nearest tenth.



17. At a certain time of day, the angle of elevation of the sun is 35° . Find, to the nearest meter, the height of a building that casts a 25 m shadow.
 18. A road rises vertically 30 ft over a horizontal distance of 500 ft. What is the angle of elevation of the road to the nearest degree?

1. For the triangle at the right, find the sine, cosine, and tangent of each acute angle.

$\sin X = \frac{15}{17} = 0.88$ $\cos X = \frac{8}{17} = 0.47$ $\tan X = \frac{15}{8} = 1.875$
 $\sin Z = \frac{8}{17} = 0.47$ $\cos Z = \frac{15}{17} = 0.88$ $\tan Z = \frac{8}{15} = 0.53$



Find the value of the following ratios to four decimal places. Use a calculator or trigonometric tables.

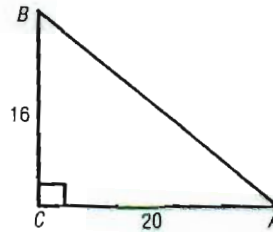
2. $\sin 58^\circ = 0.8480$ 3. $\tan 86^\circ = 14.3007$ 4. $\cos 42^\circ = 0.7431$
 5. $\tan 4^\circ = 0.0699$ 6. $\cos 75^\circ = 0.2588$ 7. $\sin 15^\circ = 0.2588$

Find the measurement of each angle to the nearest degree. Use a calculator or trigonometric tables.

8. $\tan B = 3.2709 \rightarrow 73^\circ$ 9. $\cos X = 0.9613 \rightarrow 16^\circ$ 10. $\sin A = 0.9700 \rightarrow 76^\circ$
 11. $\cos C = 0.1045 \rightarrow 84^\circ$ 12. $\sin Y = 0.3101 \rightarrow 18^\circ$ 13. $\tan Z = 0.5543 \rightarrow 29^\circ$

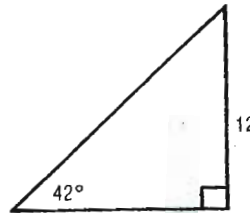
14. Find the degree measure of $\angle A$ to the nearest degree.

39°



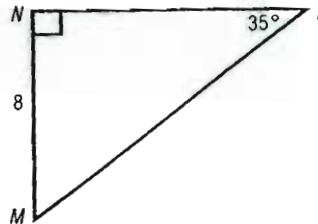
15. Find the measure of the hypotenuse to the nearest tenth.

17.9



16. Find $m\angle X$ to the nearest degree, and find LM and LN to the nearest tenth.

$m\angle X = 55^\circ$
 $LM = 13.9$
 $LN = 11.4$



17. At a certain time of day, the angle of elevation of the sun is 35° . Find, to the nearest meter, the height of a building that casts a 25 m shadow. 17.5
 18. A road rises vertically 30 ft over a horizontal distance of 500 ft. What is the angle of elevation of the road to the nearest degree? 3°