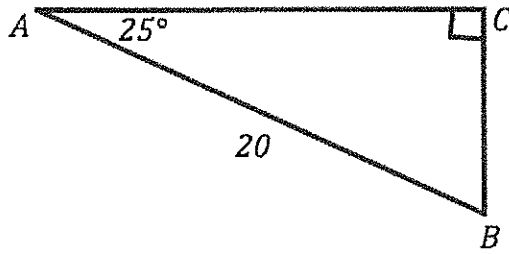


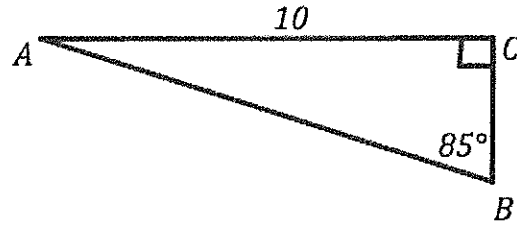
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Solve each right triangle. Give any missing sides and missing angles.

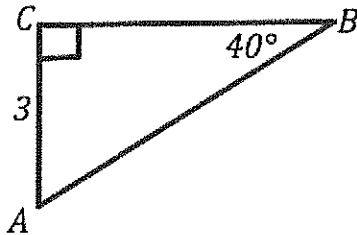
9.



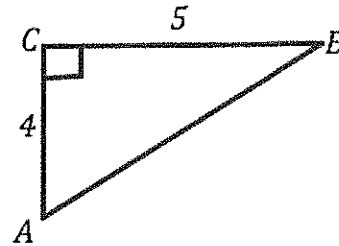
10.



11.



12.



Use the given trigonometric ratio to sketch a right triangle and find the missing sides and angles. **Choose odds or evens for #13-18.**

13. $\sin(A) = \frac{1}{2}$

14. $\cos(B) = \frac{3}{5}$

15. $\tan(B) = \frac{6}{7}$

16. $\sin(B) = \frac{7}{10}$

17. $\cos(A) = \frac{5}{8}$

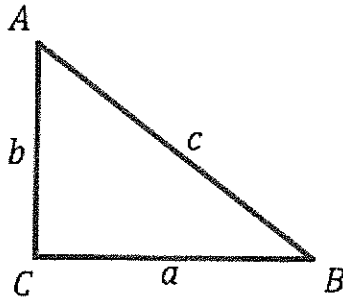
18. $\tan(A) = \frac{4}{15}$



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#19 Honors Only

19. Use the right triangle below to determine which of the following are equivalent.



a. $\sin(A)$

b. $\cos(A)$

c. $\tan(A)$

d. $\sin(B)$

e. $\cos(B)$

f. $\tan(B)$

g. $\frac{\sin(A)}{\cos(A)}$

h. $\frac{1}{\tan(A)}$

i. 1

j. $a^2 + b^2$

k. c^2

l. $\sin^2(b) + \cos^2(b)$

Go

Topic: Applying trigonometric ratios and identities to solve problems.

Sketch a drawing of the situation. Solve each problem.

20. Mark is building his son a pitcher's mound so he can practice for his upcoming baseball season in the backyard. Mark knows that the league requires an incline of 12° and an elevation of 8 inches in height. How long will the front of the pitcher's mound need to be?

21. Susan is designing a wheelchair ramp. Wheelchair ramps require a slope that is no more than 1-inch of rise for every 12-inches of ramp length. Susan wants to determine how much horizontal distance a ramp of 6-feet in length will span? She also wants to know the degree of incline from the base of the ramp to the ground.

22. Michael is designing a house with a roof pitch of 5. Roof pitch is the number of inches that a roof will rise for every 12 inches of run. What is the angle that will need to be used in building the trusses and supports for the roof? What is the angle of a roof with 5/12 pitch increase? At the peak of the roof what angle will there be when the front and the back of the roof come together?

