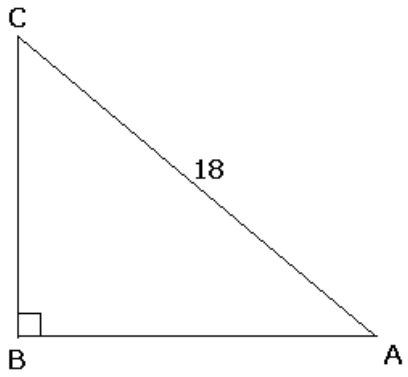
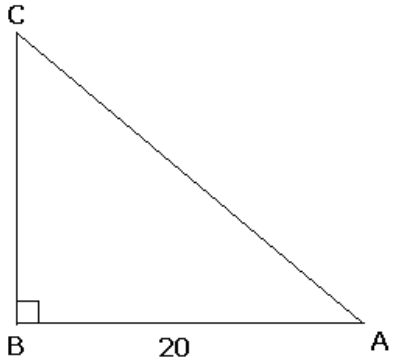
Geometry District Assessment 8 Form A Name_____

(Links to State Standard GE 18.0 and 19.0) (Use after section 9.6) Date_____Period _____

1. In the figure below, sin angle A = 0.8
What is the length of $\overline{BC}$?



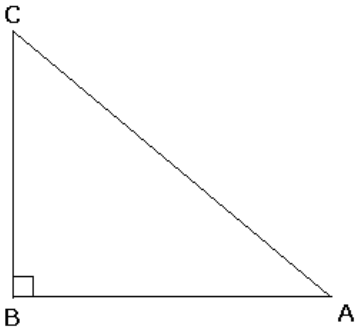
2. In the figure below, cos A = 0.5
What is the length of $\overline{AC}$?



3. In the triangle shown, $\sin A = \frac{15}{25}$. What are cos A and tan A?

cos A =

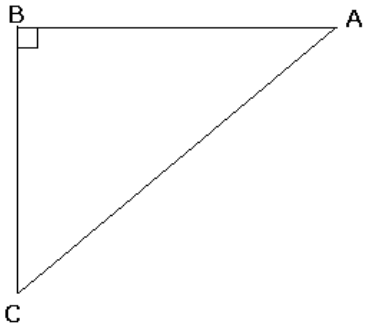
tan A =



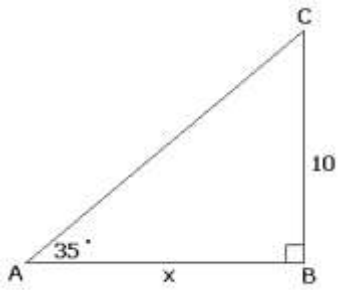
4. In the triangle shown, $\tan A = \frac{8}{15}$. What are sin A and cos A?

sin A =

cos A =

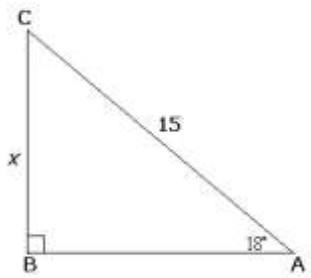


5. In the accompanying diagram, $m\angle A = 35^\circ$. Which equation could be used to find *x* in $\triangle ABC$?



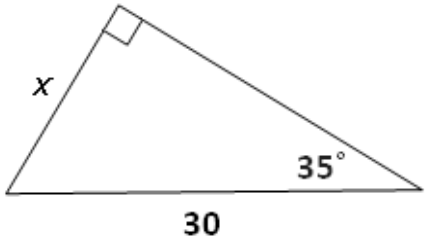
A. $x = 10\sin 35^\circ$
B. $x = 10\cos 35^\circ$
C. $x = 10\tan 35^\circ$
D. $x = \frac{10}{\tan 35^\circ}$

6. In the accompanying diagram, $m\angle A = 18^\circ$. Which equation could be used to find *x* in $\triangle ABC$?



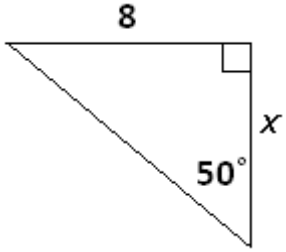
A. $x = 15\sin 36^\circ$
B. $x = 15\cos 36^\circ$
C. $x = 15\tan 36^\circ$
D. $x = \frac{15}{\cos 36^\circ}$

7. Find the length of x.



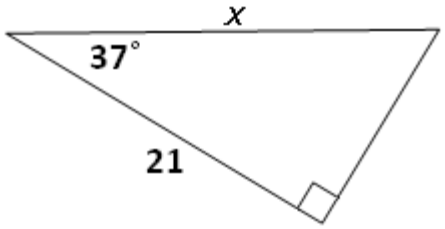
$\sin 35^\circ \approx 0.57$
$\cos 35^\circ \approx 0.82$
$\tan 35^\circ \approx 0.70$

8. Find the length of x.



$\sin 50^\circ \approx 0.77$
$\cos 50^\circ \approx 0.64$
$\tan 50^\circ \approx 1.19$

9. Find the length of x.

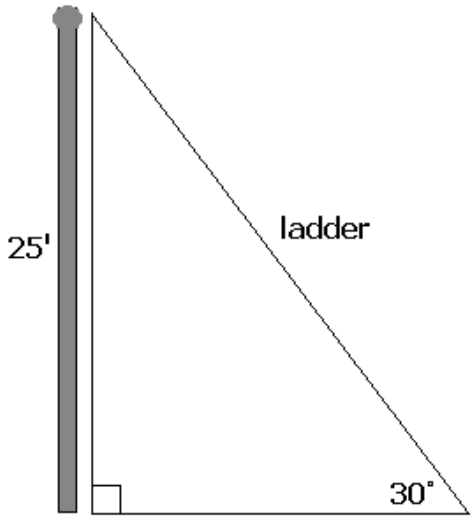


$\sin 37^\circ \approx 0.6$
$\cos 37^\circ \approx 0.8$
$\tan 37^\circ \approx 0.75$

10. The diagram shows a flag pole that is 25 feet tall. In order to reach the top of the flag pole the ladder must be extended at a 30 degree angle to the ground. How far out from the pole must the base of the ladder be? (Show the trigonometric ratio, the calculations and round the answer to the nearest tenth of a foot)

$\sin 30^\circ \approx 0.50$
$\cos 30^\circ \approx 0.87$
$\tan 30^\circ \approx 0.58$

Work:



Answer: