

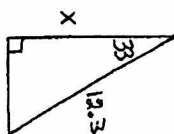
Name:

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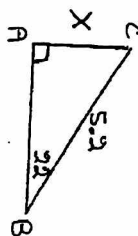
Period:

HW #9-10: Test Review

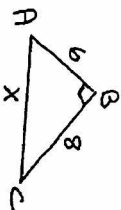
1. Find the value of x . Round to hundredth.



2. Find the value of x . Round to hundredth.



3. Find x and $m\angle C$. Round to hundredth.



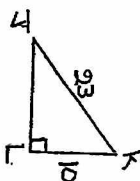
4. Find $\sin 45^\circ$. Exact answer.

6. Find $\cos 60^\circ$. Exact answer.

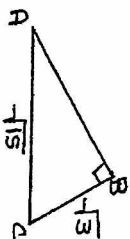
5. Find $\tan 45^\circ$. Exact answer.

7. Find $\tan 30^\circ$. Exact answer.

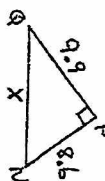
8. Find $\sin K$. Exact answer.



9. Find $\sin A$. Exact answer.



10. Find x and $m\angle Q$. Round to hundredth.



11. Classify the triangle with side lengths 6, 10, and 12.

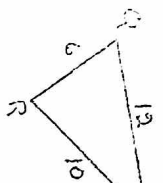
12. Solve the triangle with vertices $A(4, -6)$, $B(-3, 1)$ and $C(-3, -6)$. Round to hundredth.

13. Two buildings are 120 feet apart. A sunbather on top of the shorter building find the angle of elevation to the roof of the taller building is 23° and the angle of depression to the base of the taller building is 34° . Find the height of the taller building to the nearest foot.

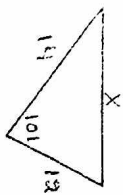
14. A pilot in a plane spots a forest fire on the ground at an angle of depression of 71° . The plane's altitude is 3000 feet. To the nearest foot, what is the horizontal distance from the plane to the fire?

15. A department store escalator is 80 feet long. If it rises 32 feet vertically, find the angle it makes with the floor to the nearest hundredth of a degree.

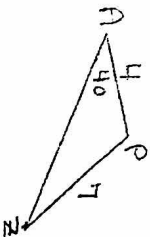
16. Find $m\angle Q$. Round to hundredth.



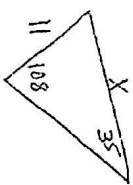
17. Find x . Round to hundredth.



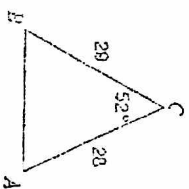
18. Find $m\angle Z$. Round to hundredth.



19. Find x . Round to hundredth.

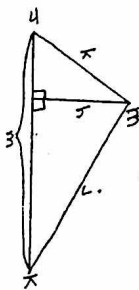


20. Find $m\angle A$. Round to hundredth.

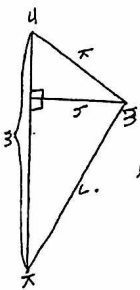


21. Find the area of the triangle in #20. Round to hundredth.

22. Use the triangle below to derive the Law of Sines.



23. Use the triangle below to derive the Law of Cosines.



24. The edges of a triangular pillow measure 8, 6, and 3 inches. To the nearest degree, what is the measure of the largest angle of the pillow?

25. **CHALLENGE!!!** The medians of a right triangle that are drawn from the vertices of the acute angles have lengths of $2\sqrt{61}$ and $\sqrt{601}$. Find the length of the hypotenuse. Exact answer. (hint: use Pythagorean Theorem)