

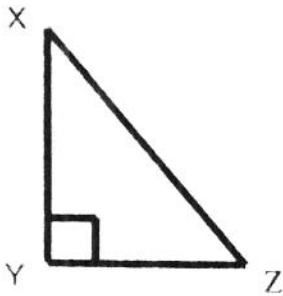
Use the picture to the right for the following questions: <sup>14.</sup>

1. Name the hypotenuse, \_\_\_\_\_

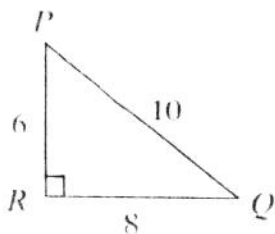
2.  $\tan Z =$  \_\_\_\_\_

3.  $\cos Z =$  \_\_\_\_\_

4.  $\sin Z =$  \_\_\_\_\_

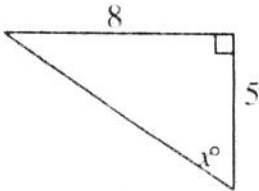


5. Write the tangent ratios for  $\angle P$  and  $\angle Q$ .



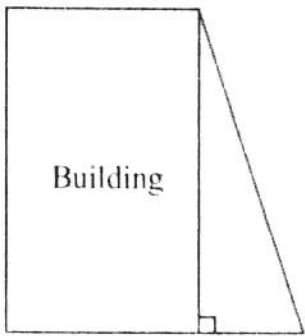
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8. Find the value of  $x$ . Round to the nearest degree.  
Circle your final answer.



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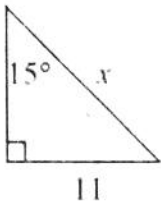
9. The students in Mr. Johnson's class used a surveyor's measuring device to find the angle from their location to the top of a building to be  $54^\circ$ . They measured their distance from the bottom of the building to be 125 feet. To the nearest foot, find the height of the building.



10. Find the missing value to the nearest tenth.

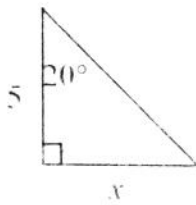
$\tan \underline{\hspace{1cm}} = 35$

11. Find the value of  $x$ . Round to the nearest tenth. Circle your final answer.



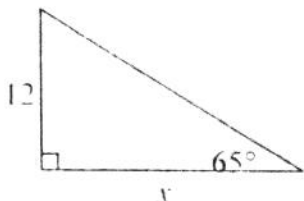
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6. Find the value of  $x$ . Round your answer to the nearest tenth. Circle your final answer.



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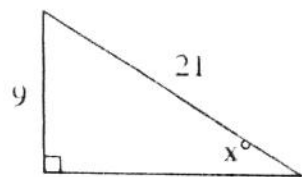
7. Find the value of  $x$ . Round to the nearest tenth. Circle your final answer.



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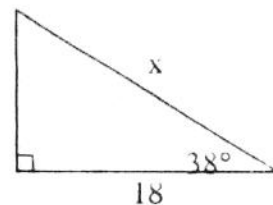
12. A slide 4.7 meters long makes an angle of  $65^\circ$  with the ground. To the nearest tenth of a meter, how far above the ground is the top of the slide?

13. Find the value of  $x$ . Round to the nearest degree. Circle your final answer.



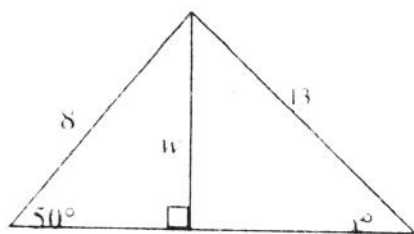
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17. Find the value of  $x$ . Round to the nearest tenth. Circle your final answer

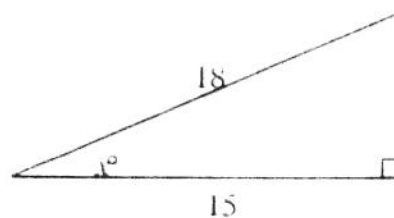


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14. Find the value of  $w$  and then  $x$ . Round lengths to the nearest tenth and angle measures to the nearest degree.

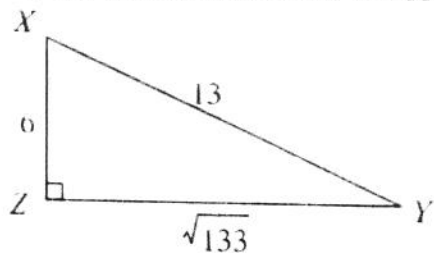


18. Find the value of  $x$ . Round to the nearest degree. Circle your final answer.

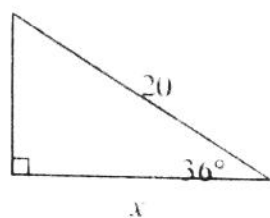


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15. Write the ratios for  $\sin X$  and  $\cos X$ .



16. Find the value of  $x$ . Round to the nearest tenth. Circle your final answer.



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19. Viola drives 155 meters up a hill that makes an angle of  $4^\circ$  with the horizontal. To the nearest tenth of a meter, what horizontal distance has she covered?

20. To approach the runway, a small plane must begin a  $11^\circ$  descent starting from a height of 925 feet above the ground. To the nearest tenth of a mile, how many miles from the runway is the airplane at the start of this approach?