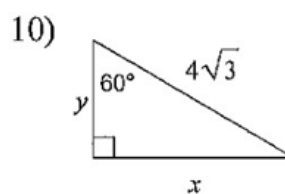
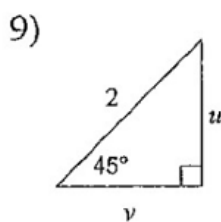
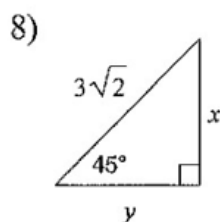
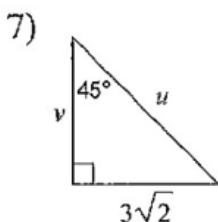
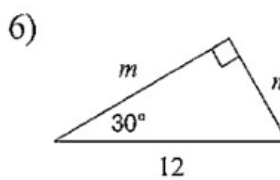
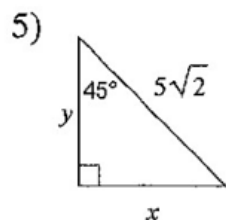
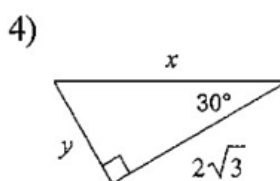
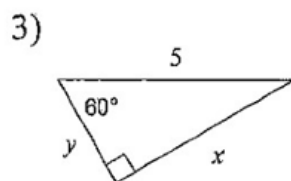
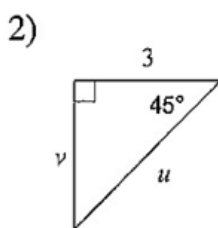
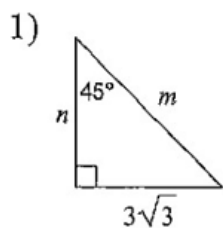


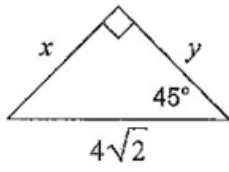
Name: _____ Hour: _____

11.6 Special Right Triangles and Complementary Angles

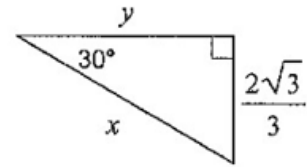
Find the missing side lengths. Leave your answers as radicals in simplest form.



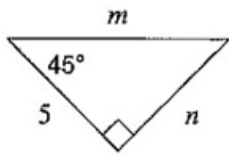
11)



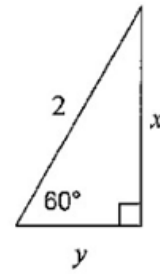
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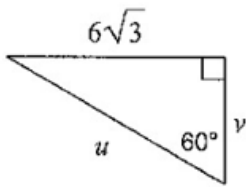
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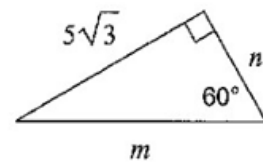
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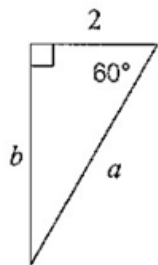
15)



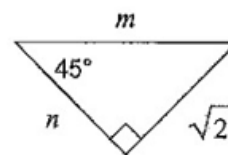
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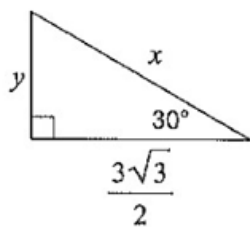
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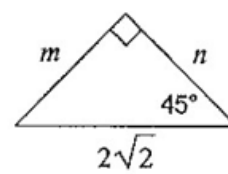
18)



19)



20)



Find the following using the right triangle to the right of problems.

21. $\sin A = \underline{\hspace{2cm}}$

22. $\cos B = \underline{\hspace{2cm}}$

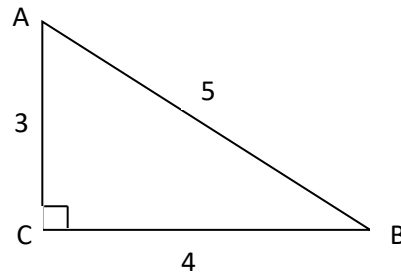
23. $\sin B = \underline{\hspace{2cm}}$

24. $\cos A = \underline{\hspace{2cm}}$

25. What do you notice about $\sin A$ and $\cos B$?

26. What do you notice about $\sin B$ and $\cos A$?

27. Why do you think this occurs in both situations?

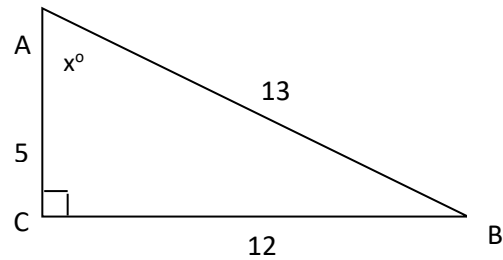


Find the following using the right triangle to the right of problems.

28. $\sin A = \underline{\hspace{2cm}}$

29. $\cos B = \underline{\hspace{2cm}}$

30. Write an equation to show that problem 28 and 29 are equal to each other.



31. If angle $A = x^\circ$ degrees then angle B would have a measurement of how many degrees in the triangle above. (Hint: Write an equation for it.)

32. Write an equation using the equation from problem 30 and the information from problem 31 about the angle measures.

33. Will this equation hold true for all angles between 0 and 90 degrees. Explain your reasoning.

Rewrite each equation using complements and the other trig function.

34. $\sin 35^\circ = \underline{\hspace{2cm}}$

35. $\cos 40^\circ = \underline{\hspace{2cm}}$

36. $\sin 15^\circ = \underline{\hspace{2cm}}$

37. $\cos 70^\circ = \underline{\hspace{2cm}}$

38. $\sin 5^\circ = \underline{\hspace{2cm}}$

39. $\cos 81^\circ = \underline{\hspace{2cm}}$

40. $\sin w^\circ = \underline{\hspace{2cm}}$

41. $\cos t^\circ = \underline{\hspace{2cm}}$