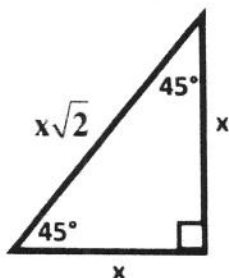


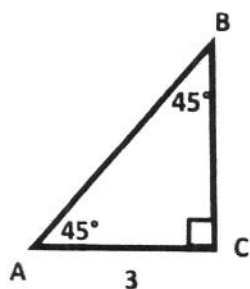
"45-45-90" Notes

Name _____



1. set formula – number
2. solve for "x"
3. find the missing sides

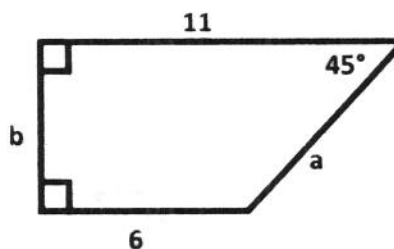
Example 1



BC = _____

AB = _____

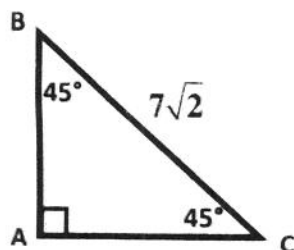
Example 4



a = _____

b = _____

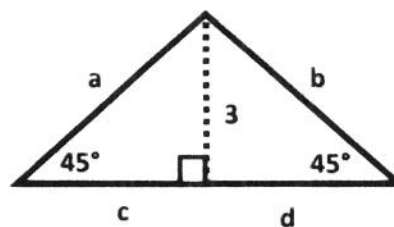
Example 2



AB = _____

AC = _____

Example 5



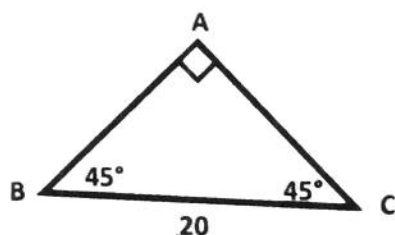
a = _____

b = _____

c = _____

d = _____

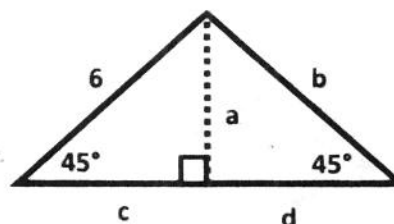
Example 3



AB = _____

AC = _____

Example 6



a = _____

b = _____

c = _____

d = _____

Draw the picture and solve the following problems.

23 Find the length of the side of an isosceles right triangle if the length of the hypotenuse is $2\sqrt{2}$

Use the given figure to find the indicated lengths.

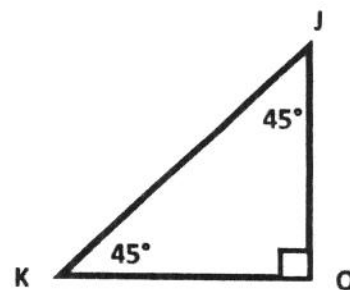
1. $JQ = 3$, $QK = \underline{\hspace{2cm}}$, $JK = \underline{\hspace{2cm}}$.

2. $JQ = 4$, $QK = \underline{\hspace{2cm}}$, $JK = \underline{\hspace{2cm}}$.

3. $QK = 6$, $JK = \underline{\hspace{2cm}}$, $JQ = \underline{\hspace{2cm}}$.

4. $JK = 8\sqrt{2}$, $JQ = \underline{\hspace{2cm}}$, $QK = \underline{\hspace{2cm}}$.

6. $JK = 7$, $JQ = \underline{\hspace{2cm}}$, $QK = \underline{\hspace{2cm}}$.

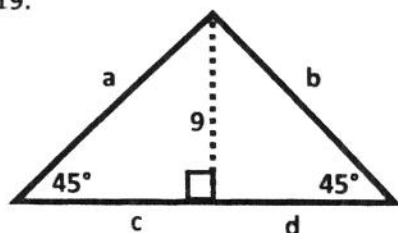


5. $JK = 9\sqrt{2}$, $JQ = \underline{\hspace{2cm}}$, $QK = \underline{\hspace{2cm}}$.

7. $JK = 10$, $JQ = \underline{\hspace{2cm}}$, $QK = \underline{\hspace{2cm}}$.

Find the value of each variable. Leave your answer in simplest radical form.

19.



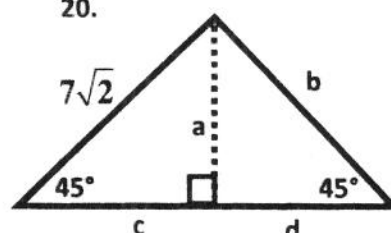
$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

20.



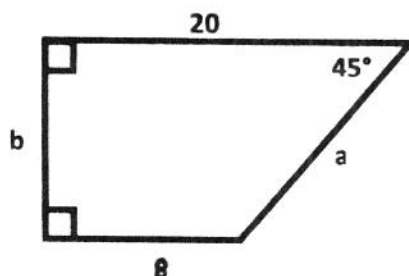
$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

$c = \underline{\hspace{2cm}}$

$d = \underline{\hspace{2cm}}$

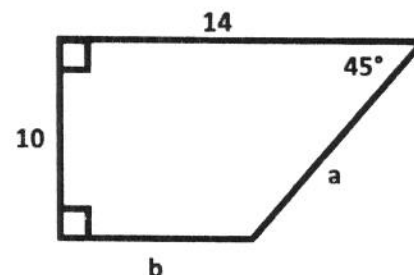
21.



$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

22.



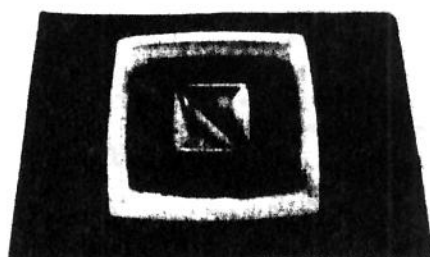
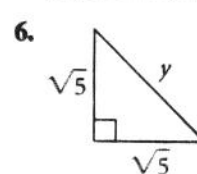
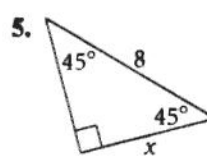
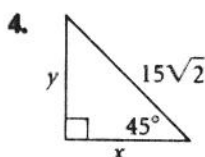
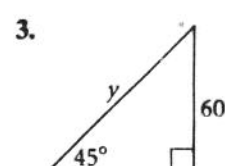
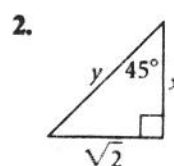
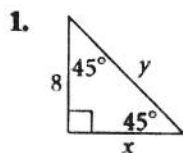
$a = \underline{\hspace{2cm}}$

$b = \underline{\hspace{2cm}}$

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1-8, 21, 22

Find the value of each variable. If your answer is not an integer, leave it in simplest radical form.



Exercise 7

7. Dinnerware Design You are designing dinnerware. What is the length of a side of the smallest square plate on which a 20-cm chopstick can fit along a diagonal without any overhang? Round your answer to the nearest tenth of a centimeter.

8. Helicopters The four blades of a helicopter meet at right angles and are all the same length. The distance between the tips of two adjacent blades is 36 ft. How long is each blade? Round your answer to the nearest tenth.