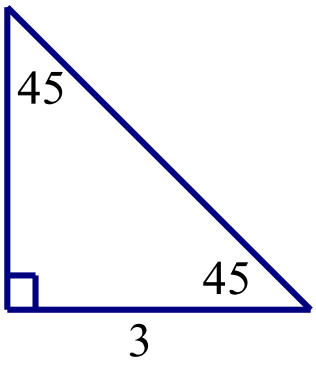
Name _____ Date _____

Mr. Schlansky Algebra II

Special Right Triangles

Fill in the two missing sides of each of the following triangles.

1.



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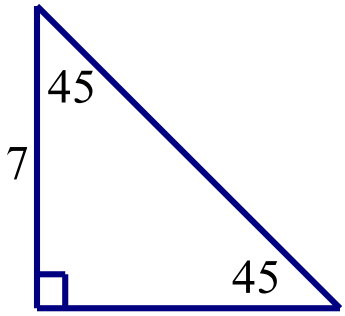

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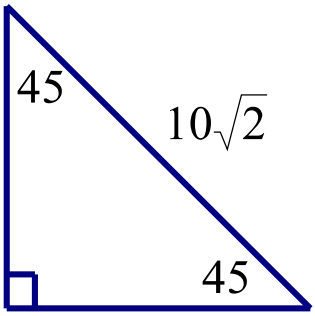

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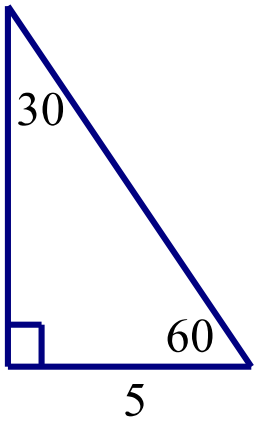

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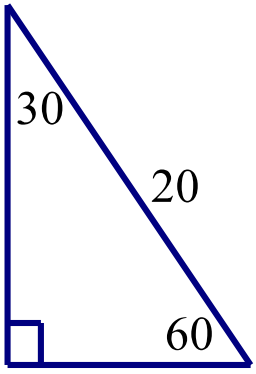

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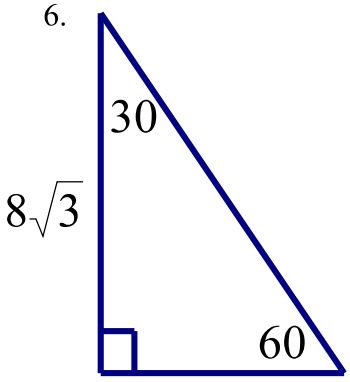

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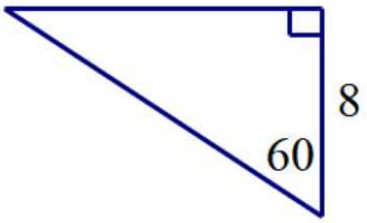

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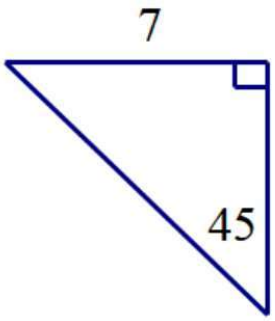

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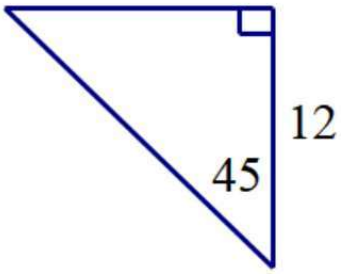

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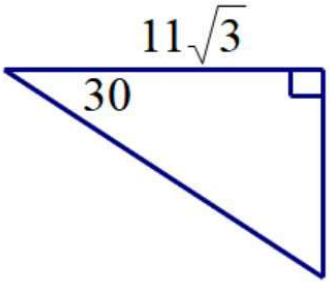

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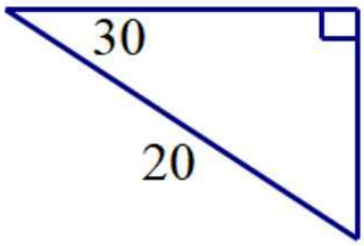

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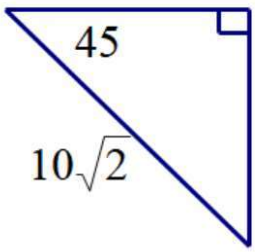

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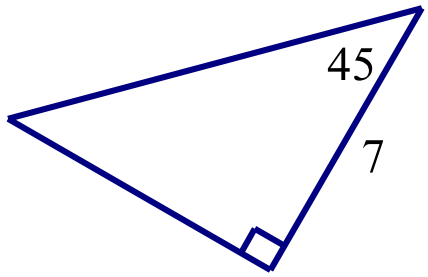

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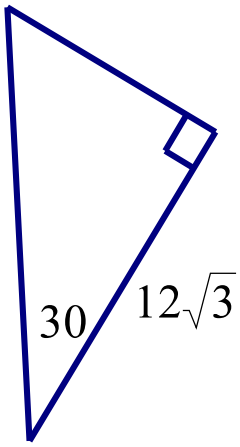

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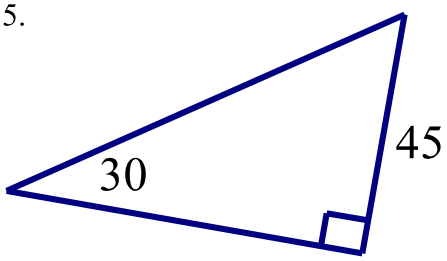

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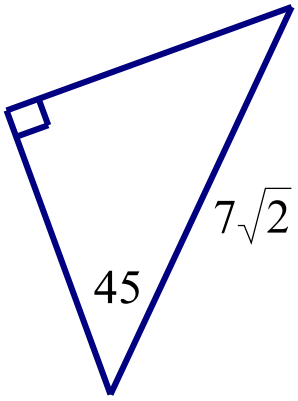

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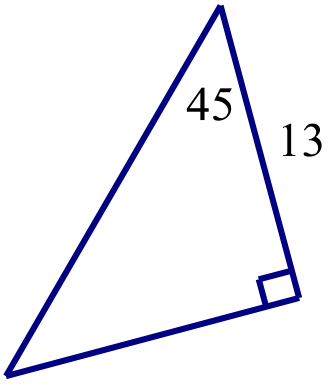

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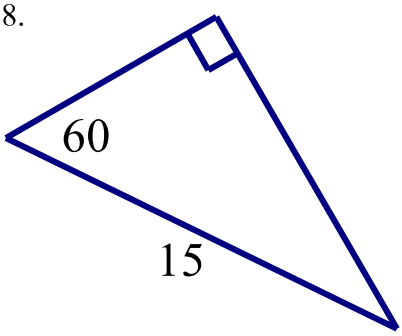
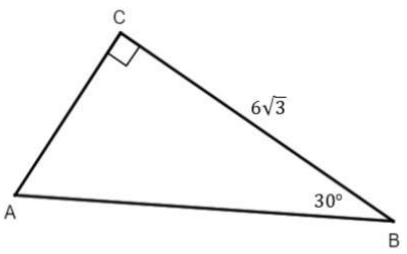


19. In right triangle *ABC* below, $m\angle C = 90°$, $m\angle B = 30°$, and $CB = 6\sqrt{3}$

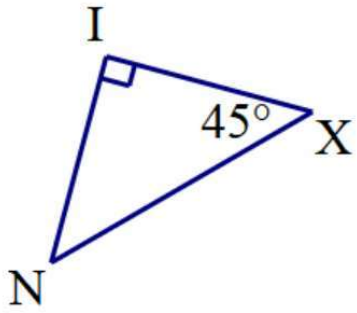
The length of $\overline{AB}$ is

1) $3\sqrt{3}$
2) 9
3) 12
4) $12\sqrt{3}$



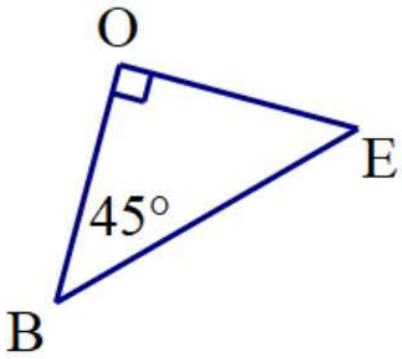
20. In right triangle *NIX* below, $m\angle I = 90°$, $m\angle X = 45°$, and $\overline{NX} = 6\sqrt{2}$. Find $\overline{IX}$.

1) $6\sqrt{2}$
2) 6
3) $12\sqrt{2}$
4) 12



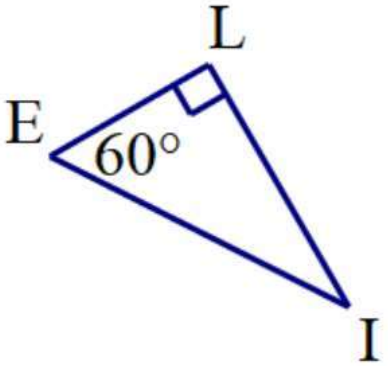
21. In right triangle *BOE* below, $m\angle O = 90°$, $m\angle B = 45°$, and $\overline{OE} = 12$. Find $\overline{BE}$.

1) 12
2) $12\sqrt{3}$
3) $12\sqrt{2}$
4) 24



22. In right triangle *BOE* below, $m\angle L = 90°$, $m\angle E = 60°$, and $\overline{IE} = 20$. Find $\overline{LI}$.

1) $20\sqrt{3}$
2) 10
3) $10\sqrt{3}$
4) 20

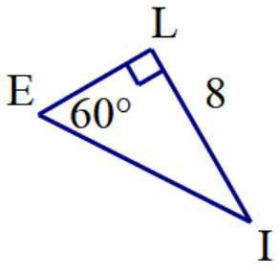


Rationalize the denominator for each of the following

23. $\frac{7}{\sqrt{2}}$ 24. $\frac{2}{\sqrt{3}}$ 25. $\frac{6}{\sqrt{2}}$ 26. $\frac{12}{\sqrt{3}}$

Find the missing sides for each of the triangles below in simplest radical form

27.



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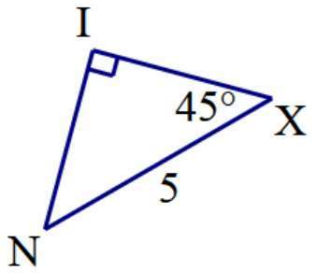

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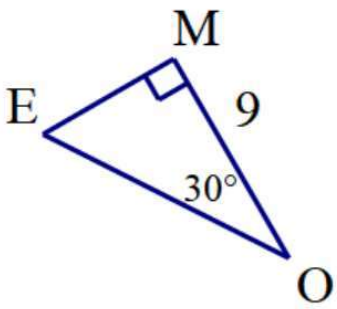

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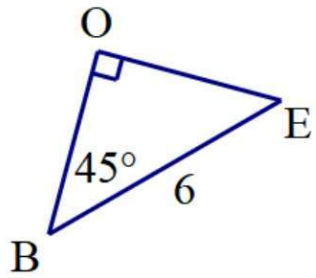
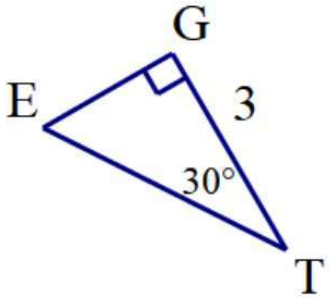


31.



32.