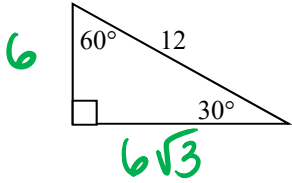
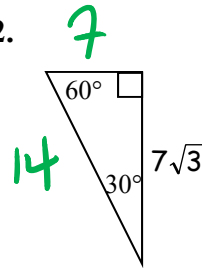


Examples of Special Right Triangles: In each of the following triangles, find the lengths of the two remaining sides.

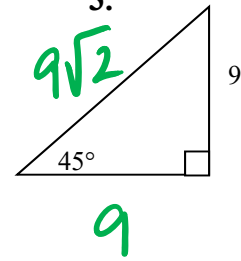
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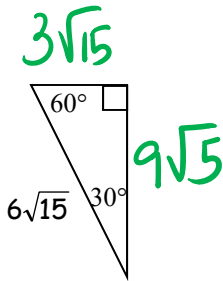
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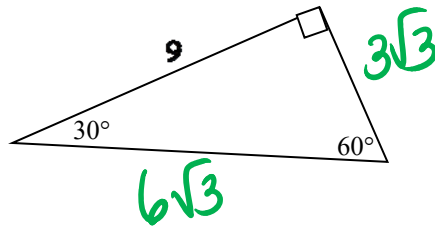
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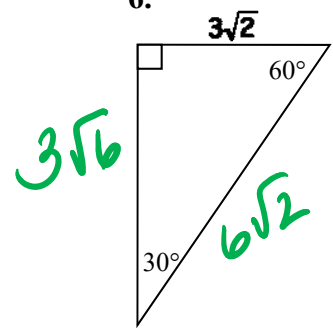
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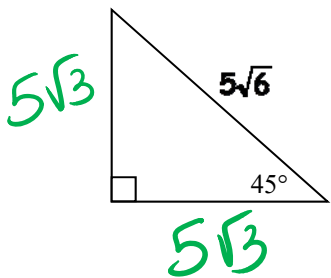
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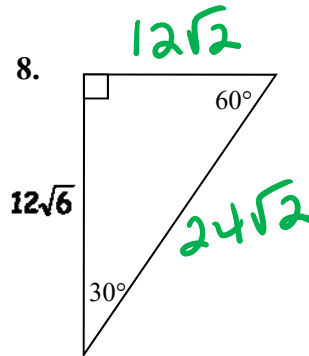
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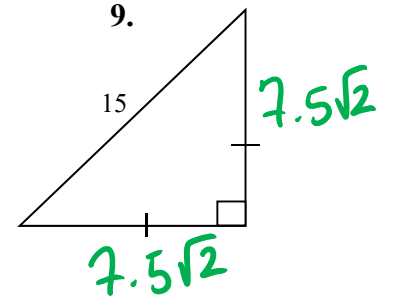
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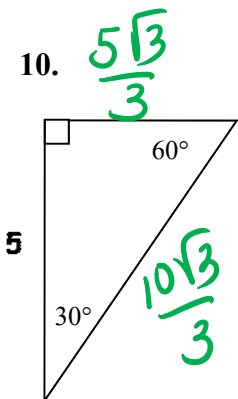
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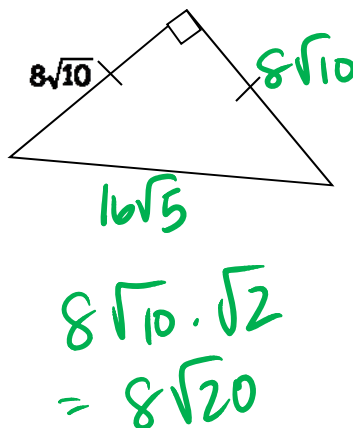
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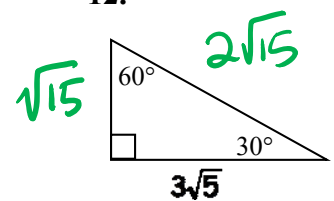
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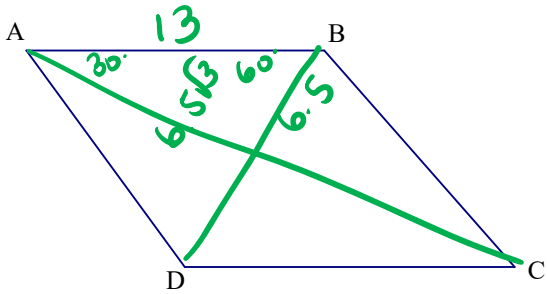
11.



12.

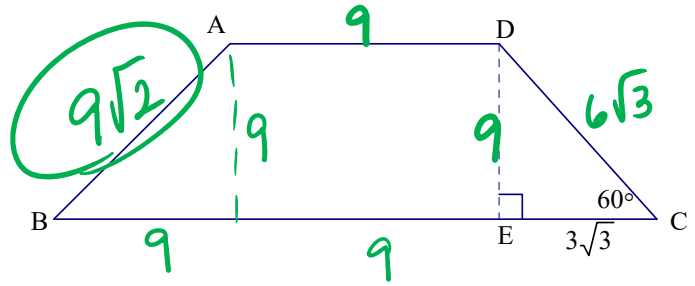


13. The perimeter of rhombus ABCD is 52 and $m\angle ABC$ is 120° . Find the lengths of the diagonals.

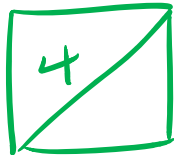


Diagonal 1 = 13
Diagonal 2 = $13\sqrt{3}$

14. Given ABCD is a trapezoid, $AD = 9$ and $BC = 18 + 3\sqrt{3}$, find AB.



15. Find the perimeter of a square with a diagonal length of 4.

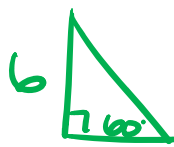
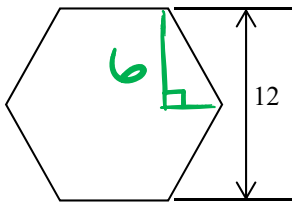


$$x\sqrt{2} = 4$$

$$x = \frac{4\sqrt{2}}{2} = 2\sqrt{2}$$

perimeter = $8\sqrt{2}$

16. Find the length of one side of a regular hexagon if its span is 12.

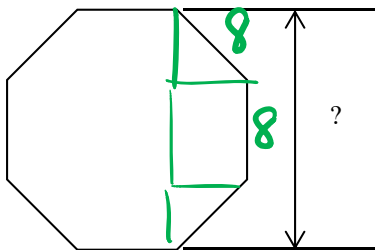


$$x\sqrt{3} = 6$$

$$x = \frac{6\sqrt{3}}{3} = 2\sqrt{3}$$

Side length = $4\sqrt{3}$

17. If a regular octagon has a perimeter of 64, what is the length of its span?



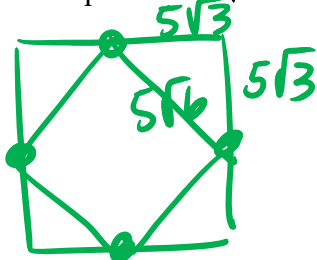
$$4\sqrt{2} \quad 8$$

$$x\sqrt{2} = 8$$

$$x = \frac{8\sqrt{2}}{2} = 4\sqrt{2}$$

Span = $4\sqrt{2} + 8 + 4\sqrt{2}$
= $8 + 8\sqrt{2}$

18. Each side of a square is $10\sqrt{3}$. Find the perimeter of the figure found by joining the midpoints of each side.



perimeter = $20\sqrt{6}$