Warm Up: Simplify

1. $(3\sqrt{11})^2$

$(3\sqrt{11})(3\sqrt{11})$

$9\sqrt{121}$

$9 \cdot 11 = 99$

2. $\sqrt{288}$

$\sqrt{36 \cdot 8}$ more to do...

$6\sqrt{8}$

$6\sqrt{4 \cdot 2}$

$12\sqrt{2}$

3. $\sqrt{6} \cdot \sqrt{6}$

$\sqrt{36}$

6

4. $\sqrt{18} \cdot \sqrt{27}$

$\sqrt{9 \cdot 2}\ \sqrt{9 \cdot 3}$

$3\sqrt{2} \cdot 3\sqrt{3}$

$9\sqrt{6}$

5. $3\sqrt{6} \cdot \sqrt{3}$

$3\sqrt{18}$

$3\sqrt{9 \cdot 2}$

$9\sqrt{2}$

Mar 26-9:08 AM

Let's look at HW...

DLT 1

Review basics of

-Simplifying radicals

-Pythagorean theorem

-Identifying types of triangles

Feb 12-10:18 AM

9.3

Solving for side lengths with Special Right Triangles

2/21

45-45-90 Triangles

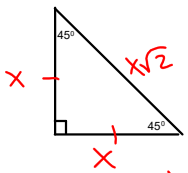
30-60-90 Triangles

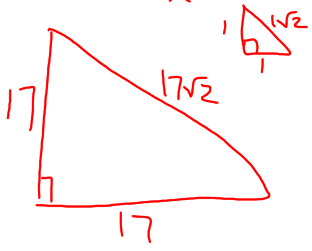
Mar 26-8:45 PM

Mar 26-9:14 AM

Special Right Triangles

$45^0 - 45^0 - 90^0$





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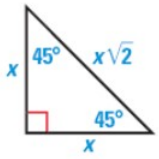
Theorem: 45°-45°-90° Triangle Theorem

In a 45°-45°-90° triangle, the hypotenuse is $\sqrt{2}$ times as long as each leg.

Hypotenuse = leg X $\sqrt{2}$

The legs are congruent.



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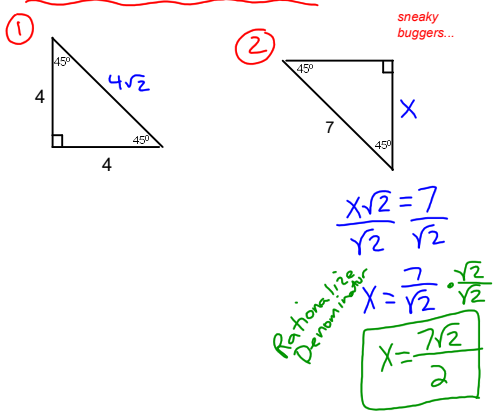
Use the 45°-45°-90° Triangle Theorem to find the missing side lengths:



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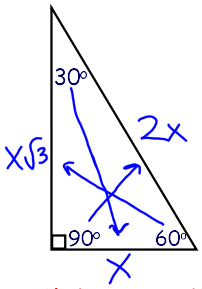
30-60-90 Triangle:

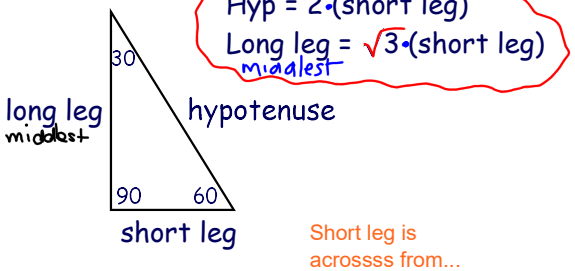


The smallest side length is opposite the smallest angle.
The largest side length is opposite the **largest angle.**

Apr 13-6:06 PM

30-60-90 Theorem:

In a 30-60-90 triangle, the hypotenuse is twice as long as the short leg, and the **long** leg is √3 times the short leg.

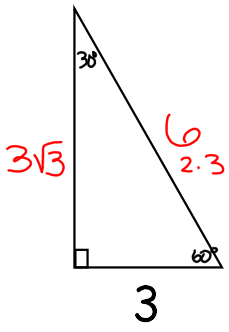


Short leg is acrossss from...

Apr 10-9:29 AM

Ex 1: given the short leg

find side lengths



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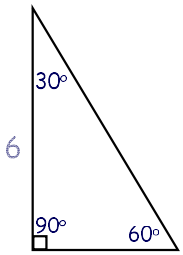
Ex 2: given the long leg



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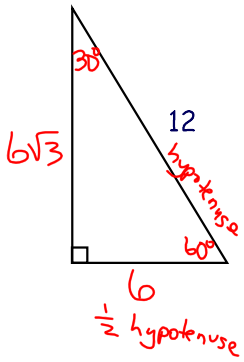
Ex 3: Given the hypotenuse



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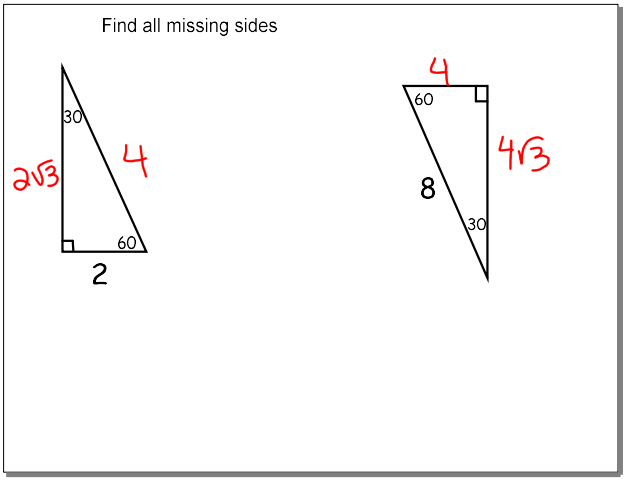

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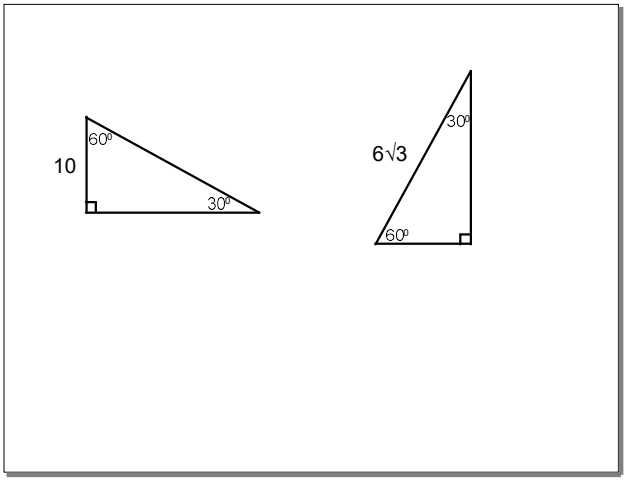

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