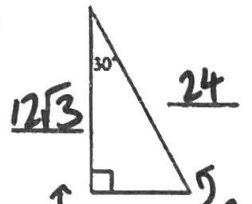
6.3 HW

Name: Key Period: _____

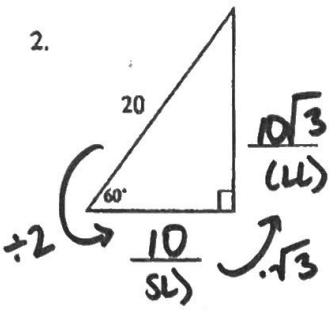
30°-60°-90° Triangles Assignment

Fill in the blanks for the special right triangles.

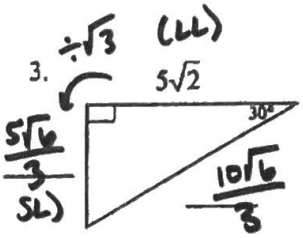
1.



2.



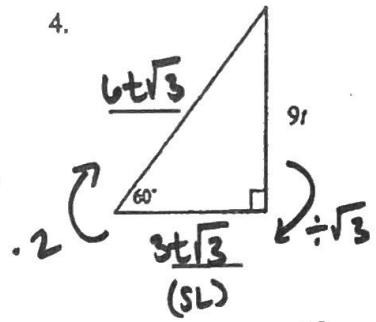
3.



$\frac{5\sqrt{2}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{5\sqrt{6}}{3}$

$\frac{5\sqrt{6}}{3} \cdot \frac{2}{1} = \frac{10\sqrt{6}}{3}$

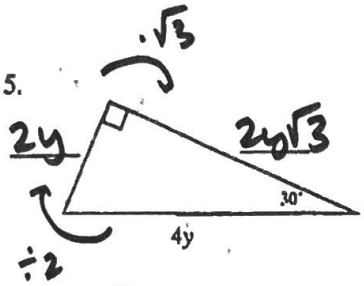
4.



$\frac{9t}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{9t\sqrt{3}}{3} = 3t\sqrt{3}$

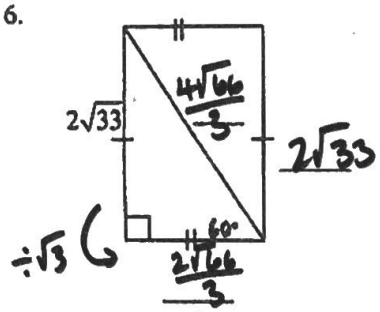
$3t\sqrt{3} \cdot 2 = 6t\sqrt{3}$

5.



$\frac{4y}{2} = 2y$

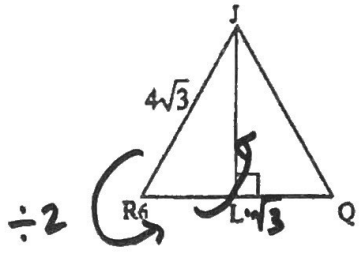
6.



$\frac{2\sqrt{33}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{66}}{3}$

$\frac{2\sqrt{66}}{3} \cdot \frac{2}{1} = \frac{4\sqrt{66}}{3}$

7. ΔRJQ is equilateral.



JQ = $4\sqrt{3}$

RL = $2\sqrt{3}$

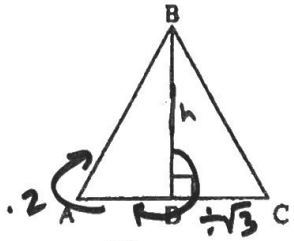
LQ = $2\sqrt{3}$

JL = 6

$\frac{4\sqrt{3}}{2} = 2\sqrt{3}$

$2\sqrt{3} \cdot \sqrt{3} = 2 \cdot 3 = 6$

8. ΔABC is equilateral.



AD = $\frac{h\sqrt{3}}{3}$

DC = $\frac{h\sqrt{3}}{3}$

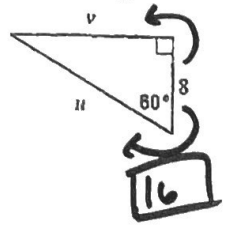
AB = $\frac{2h\sqrt{3}}{3}$

BC = $\frac{2h\sqrt{3}}{3}$

$\frac{h}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{h\sqrt{3}}{3}$

$\frac{h\sqrt{3}}{3} \cdot \frac{2}{1} = \frac{2h\sqrt{3}}{3}$

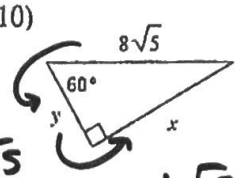
9)



$8\sqrt{3}$

16

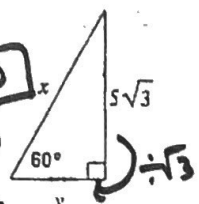
10)



$\frac{8\sqrt{5}}{2} =$ $4\sqrt{5}$

$4\sqrt{5} \cdot \sqrt{3} = 4\sqrt{15}$

11)



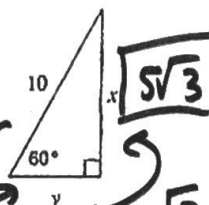
10

$\cdot 2$

$\div\sqrt{3}$

5

12)



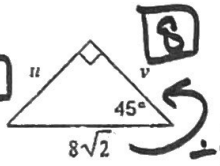
$5\sqrt{3}$

$\div 2$

$\cdot\sqrt{3}$

5

13)



8

8

$\div\sqrt{2}$

14)

$4\sqrt{3}$

$\cdot 2$

$\div\sqrt{3}$

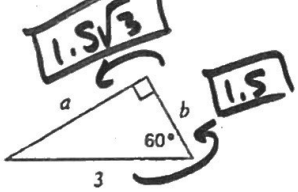
$8\sqrt{3}$

$\frac{12}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} =$

$\frac{12\sqrt{3}}{3} = 4\sqrt{3}$

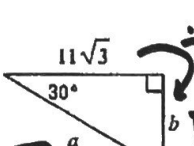
15)

$1.5\sqrt{3}$



1.5

16)



$\div\sqrt{3}$

11

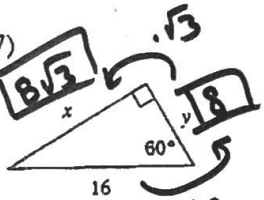
22

$\cdot 2$

17)

$8\sqrt{3}$

$\cdot\sqrt{3}$



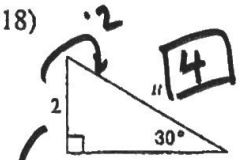
8

$\div 2$

18)

$\cdot 2$

4



$\cdot\sqrt{3}$

$2\sqrt{3}$