

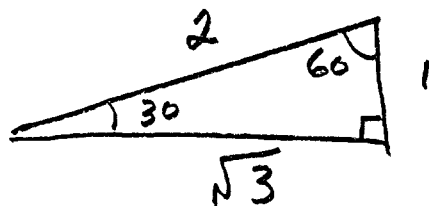
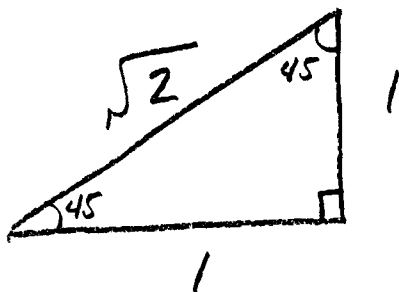
Geometry 1

TUESDAY 10-30-12

Class Notes

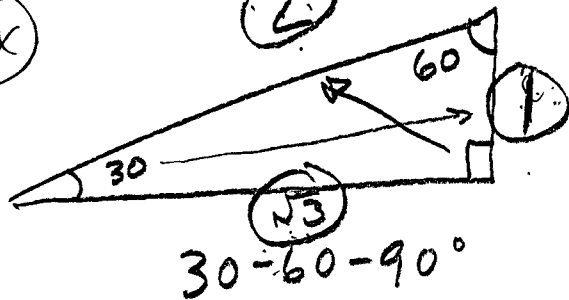
Ch. 5-8 Applying Special Right Triangles

The proportions of all 45-45-90
and 30-60-90 are the same
(by AAA) and these proportions
are:



(EX)

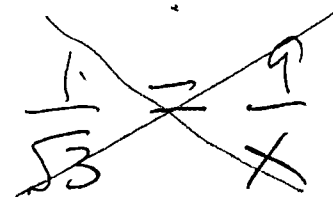
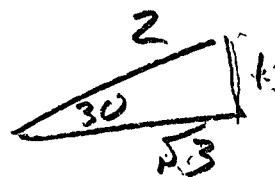
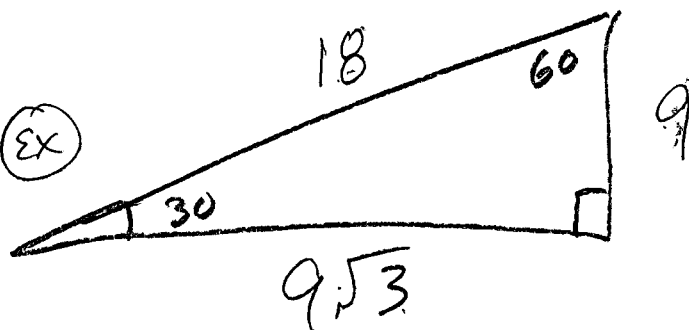
(2)



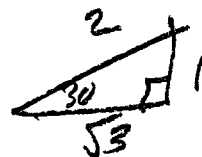
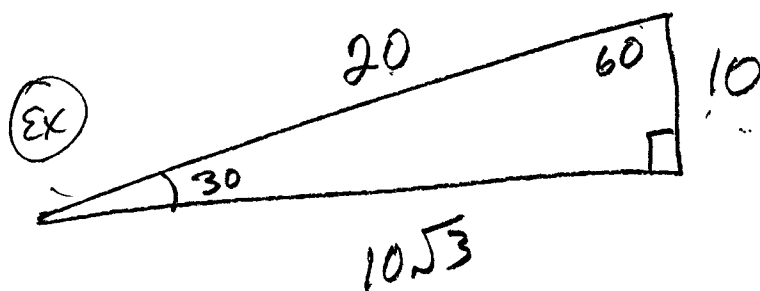
1, (2) $\sqrt{3}$
Small Big Gold

(2)

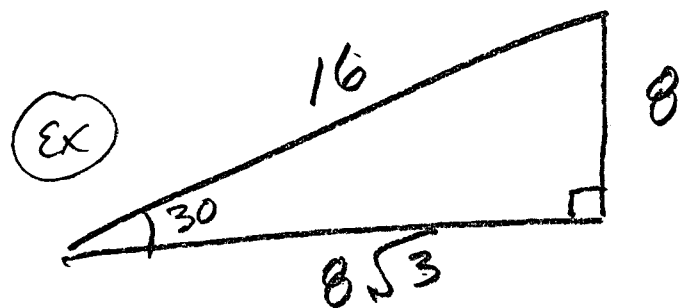
(EX)



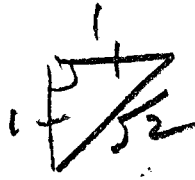
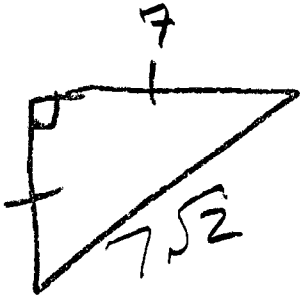
(EX)



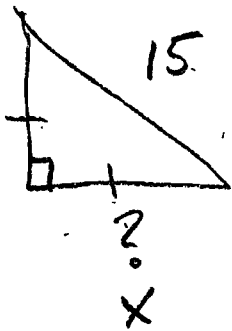
(EX)



(Ex)

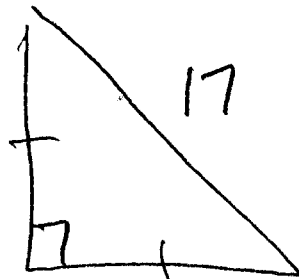
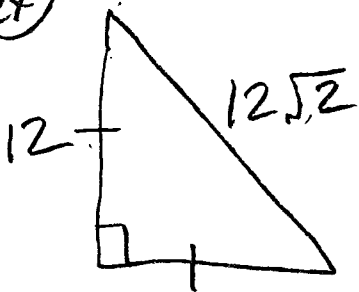


(Ex)

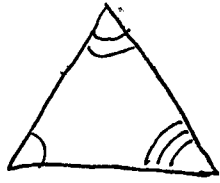


$$x = \frac{15}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \boxed{\frac{15\sqrt{2}}{2}}$$

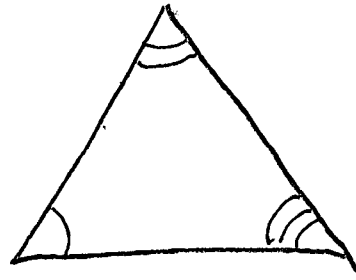
(Ex)



$$\frac{17}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \boxed{\frac{17\sqrt{2}}{2}}$$

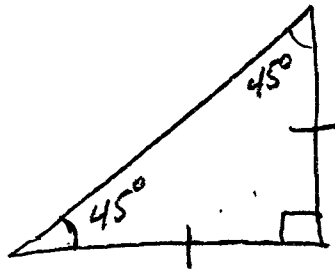


$\sim$
AAA

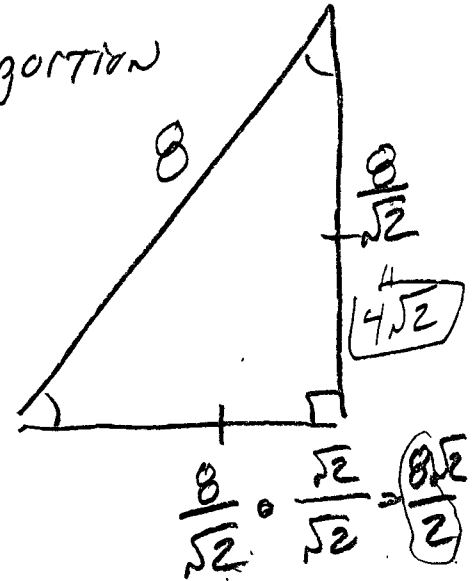
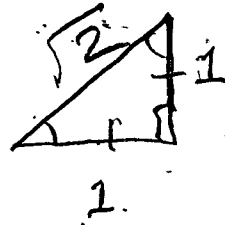


corr. sides are in proportion

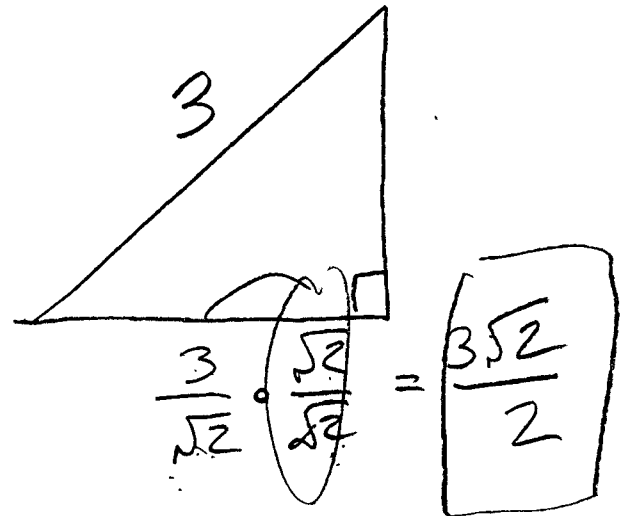
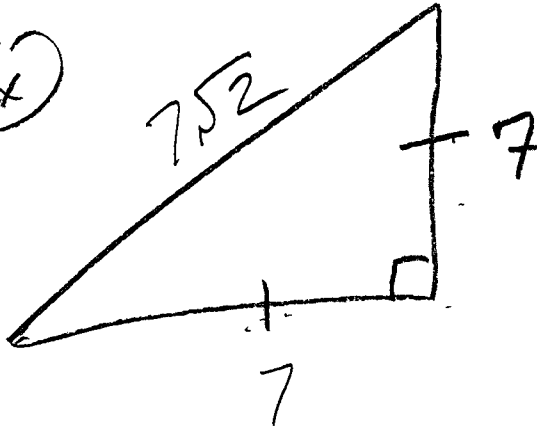
(EX)

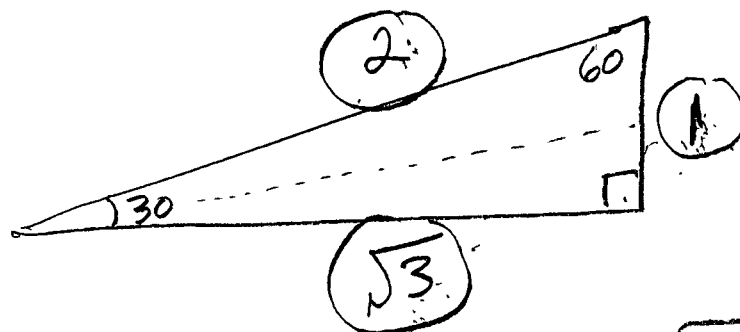


45-45-90°
isosceles
right Δ



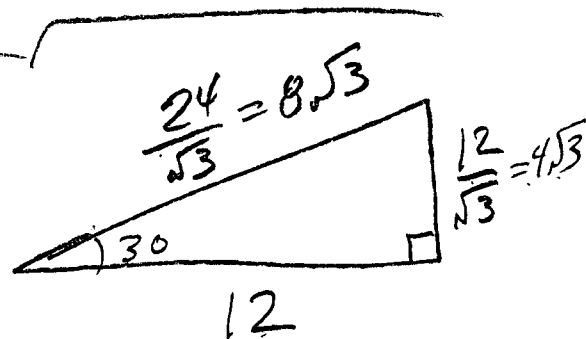
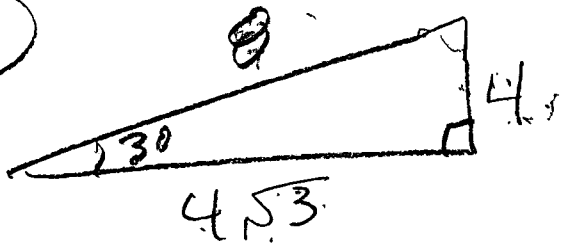
(EX)





1, 2, $\sqrt{3}$
 small $\downarrow$ large
 gold $\downarrow$ silver

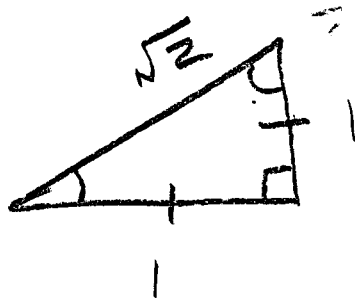
(EX)



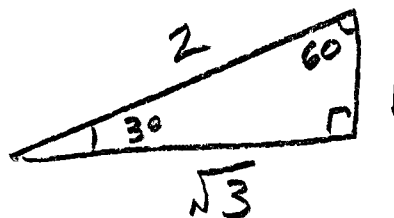
$$\frac{24}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{24\sqrt{3}}{3}$$

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

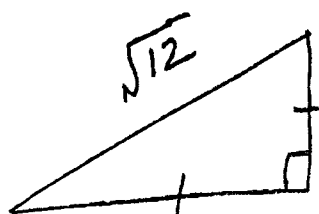
45-45-90



30-60-90

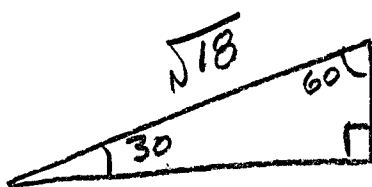


(EX)



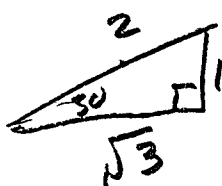
$$\times = \frac{\sqrt{12}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{24}}{2}$$

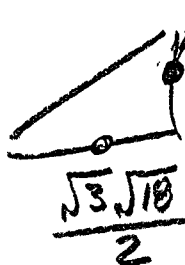
(EX)



$$= \frac{\sqrt{4} \sqrt{6}}{2}$$

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

 $\Rightarrow$



$$\frac{\sqrt{3} \cdot \sqrt{18}}{2}$$

$$= \frac{\sqrt{18}}{2}$$

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

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

$$= \sqrt{6}$$

30°

$$\hookrightarrow \frac{\sqrt{54}}{2} = \frac{\sqrt{9} \sqrt{6}}{2}$$

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

60°