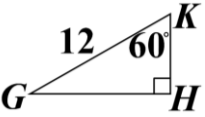
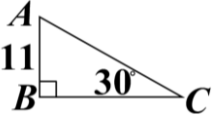
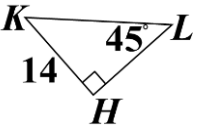
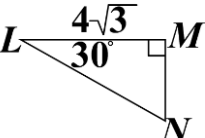
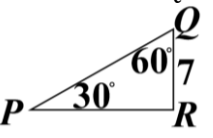
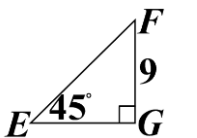
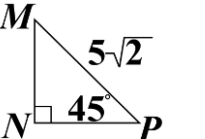
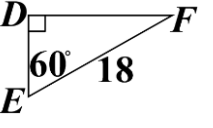
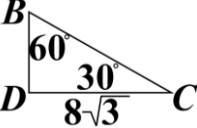


Special Triangles

Figures are not drawn to scale

30-60-90 Triangles			45-45-90 Triangles		
∠'s	sides		∠'s	sides	
small	30°	x	←	divide the biggest side by 2 or the medium side by $\sqrt{3}$	
medium	60°	$x\sqrt{3}$	←	multiply the smallest side by $\sqrt{3}$	
large	90°	$2x$	←	multiply the smallest side by 2	
Step 1: Determine which side you have (each side on the table is opposite the given angle measure).			Step 1: Determine which side you have (each side on the table is opposite the given angle measure).		
Step 2: Work backwards to get the smallest side (opp30), if you don't already have it.			Step 2: Determine the side you want by either multiplying by $\sqrt{2}$, dividing by $\sqrt{2}$ or keeping it the same.		
Step 3: Use the smallest side to determine the missing side.					

For each triangle, determine the length of all blank sides.

<p>1. Determine GH & HK.</p> 	<p>2. Determine AC & BC.</p> 	<p>3. Determine KL & HL.</p> 
<p>4. Determine MN & LN.</p> 	<p>5. Determine PQ & PR.</p> 	<p>6. Determine EG & EF.</p> 
<p>7. Determine MN & NP.</p> 	<p>8. Determine DE & DF.</p> 	<p>9. Determine BC & BD.</p> 

Special Triangles Answers

1. $GH = 6\sqrt{3}$; $HK = 6$	2. $AC = 22$; $BC = 11\sqrt{3}$	3. $KL = 14\sqrt{2}$; $HL = 14$
4. $MN = 4$; $LN = 8$	5. $PQ = 14$; $PR = 7\sqrt{3}$	6. $EG = 9$; $EF = 9\sqrt{2}$
7. $MN = 5$; $NP = 5$	8. $DE = 9$; $DF = 9\sqrt{3}$	9. $BC = 16$; $BD = 8$