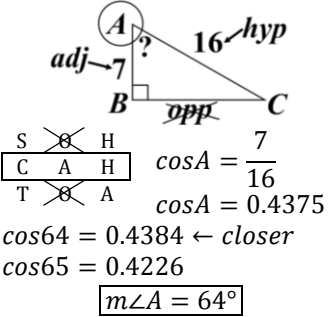
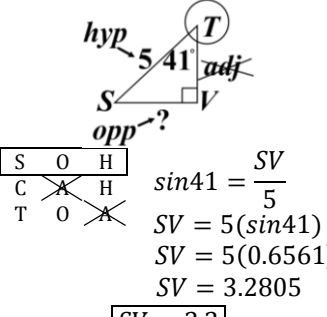
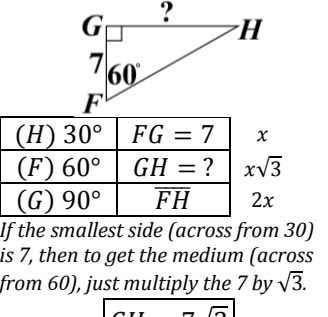
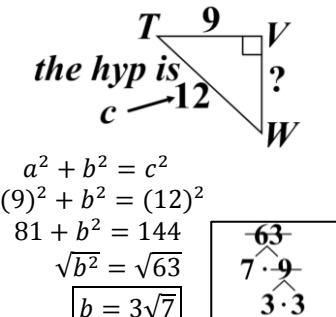
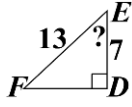
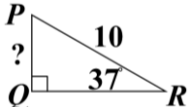
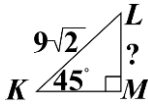
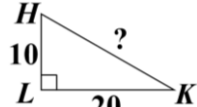
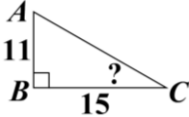
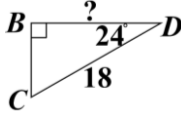
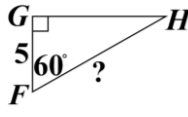
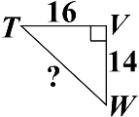
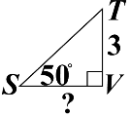
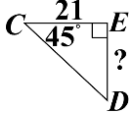
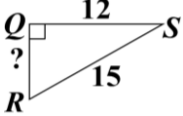
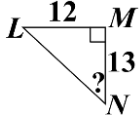
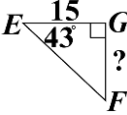
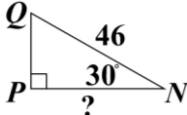
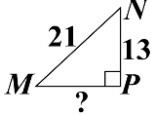


Trig, Pythagorean Theorem & Special Triangles (Part 1)

Figures are not drawn to scale

<p>Want: Angle Have: Two sides</p> <p>Use: Trig (sin, cos or tan)</p>	<p>Want: Side Have: One side & one angle</p> <p>Use: Trig (sin, cos or tan)</p>	<p>Want: Side Have: One side & two angles from 30-60-90 OR 45-45-90</p> <p>Use: Special Triangles or Trig</p>	<p>Want: Side Have: Two sides</p> <p>Use: Pythagorean Theorem</p>									
<p>EXAMPLE</p>  <p> $\cos A = \frac{7}{16}$ $\cos A = 0.4375$ $\cos 64 = 0.4384 \leftarrow \text{closer}$ $\cos 65 = 0.4226$ $m\angle A = 64^\circ$ </p>	<p>EXAMPLE</p>  <p> $\sin 41 = \frac{SV}{5}$ $SV = 5(\sin 41)$ $SV = 3.2805$ $SV = 3.3$ </p>	<p>EXAMPLE</p>  <table border="1" data-bbox="828 493 1104 598"> <tr> <td>(H) 30°</td> <td>FG = 7</td> <td>x</td> </tr> <tr> <td>(F) 60°</td> <td>GH = ?</td> <td>$x\sqrt{3}$</td> </tr> <tr> <td>(G) 90°</td> <td>FH</td> <td>2x</td> </tr> </table> <p> <i>If the smallest side (across from 30) is 7, then to get the medium (across from 60), just multiply the 7 by $\sqrt{3}$.</i> $GH = 7\sqrt{3}$ </p>	(H) 30°	FG = 7	x	(F) 60°	GH = ?	$x\sqrt{3}$	(G) 90°	FH	2x	<p>EXAMPLE</p>  <p> <i>the hyp is 12</i> $a^2 + b^2 = c^2$ $(9)^2 + b^2 = (12)^2$ $81 + b^2 = 144$ $\sqrt{b^2} = \sqrt{63}$ $b = 3\sqrt{7}$ </p>
(H) 30°	FG = 7	x										
(F) 60°	GH = ?	$x\sqrt{3}$										
(G) 90°	FH	2x										
<p>1.</p> 	<p>2.</p> 	<p>3.</p> 	<p>4.</p> 									
<p>5.</p> 	<p>6.</p> 	<p>7.</p> 	<p>8.</p> 									

<p>9</p>	<p>10.</p> 	<p>11.</p> 	<p>12.</p> 
<p>13.</p> 	<p>14.</p> 	<p>15.</p> 	<p>16.</p> 

Trig. Pythagorean Theorem & Special Triangles Answers

1. $m\angle E = 57^\circ$	2. $PQ = 6.0$	3. $GH = 7\sqrt{3}$	4. $HK = 10\sqrt{5}$
5. $m\angle C = 36^\circ$	6. $BD = 16.4$	7. $LM = 9$	8. $TW = 2\sqrt{113}$
9. $m\angle H = 60^\circ$	10. $SV = 2.5$	11. $FH = 10$	12. $QR = 9$
13. $m\angle N = 43^\circ$	14. $FG = 14.0$	15. $NP = 13\sqrt{3}$	16. $MP = 4\sqrt{17}$