Special Triangles

<u>30-60-90</u>

1. $a = 6\sqrt{3}, \quad b = 12$
2. $a = 16, \quad b = 8\sqrt{3}$
3. $a = 4, \quad b = 8$
4. $a = 4, \quad b = 2$
5. $a = \frac{16}{\sqrt{3}} = \frac{16\sqrt{3}}{3},$
   $b = \frac{8}{\sqrt{3}} = \frac{8\sqrt{3}}{3}$
6. $a = 5\sqrt{7}, \quad b = 5\sqrt{21}$
7. $a = 12, \quad b = 12\sqrt{3}$
8. $a = 30, \quad b = 15\sqrt{3}$
9. $a = 5\sqrt{6},$
   $b = 5\sqrt{18} = 15\sqrt{2}$

<u>45-45-90</u>

1. $x = 6, \quad y = 6\sqrt{2}$
2. $x = 11\sqrt{2}, \quad y = 11$
3. $x = 7, \quad y = 7$
4. $x = 2, \quad y = 2$
5. $x = 4\sqrt{3}, \quad y = 4\sqrt{6}$
6. $x = 8\sqrt{10}, \quad y = 8\sqrt{5}$
7. $x = \sqrt{10}, \quad y = \sqrt{10}$
8. $x = 6\sqrt{2}, \quad y = 6\sqrt{2}$
9. $x = 10\sqrt{3}, \quad y = 10\sqrt{3}$

<u>Multi-Step Triangles</u>

1. 14
2. $10\sqrt{3}$
3. $\frac{9\sqrt{3}}{4}$
4. $\frac{2\sqrt{6}}{3}$
5. $x = 4\sqrt{6}$