<u>**Answer Key**</u>

1. $\sin \theta = \dfrac{45}{51}$ $\csc \theta = \dfrac{51}{45}$

   $\cos \theta = \dfrac{24}{51}$ $\sec \theta = \dfrac{51}{24}$

   $\tan \theta = \dfrac{45}{24}$ $\cot \theta = \dfrac{45}{24}$

2. $\sin \theta = \dfrac{5}{11}$ $\csc \theta = \dfrac{11}{5}$

   $\cos \theta = \dfrac{4\sqrt{6}}{11}$ $\sec \theta = \dfrac{11\sqrt{6}}{24}$

   $\tan \theta = \dfrac{5\sqrt{6}}{24}$ $\cot \theta = \dfrac{4\sqrt{6}}{5}$

3. $x = 4.0$
4. $x = 14.8$
5. $x = 37.1$
6. $x = 27°$
7. $B = 55°$
   $b = 17.1$
   $c = 20.9$
8. $A = 54°$
   $a = 6.5$
   $b = 4.7$
9. $B = 60°$
   $A = 30°$
   $c = 8$

9.2   <u>**Answer Key**</u>

1. $B = 93°$
   $a = 102.1$
   $b = 393.8$
2. $C = 150°$
   $a = 31.5$
   $b = 21.2$
3. $B = 29°$
   $C = 30°$
   $c = 123.7$
4. $B = 60°$
   $C = 90°$
   $b = 17.3$
5. $C = 68°$
   $a = 14.3$
   $b = 22.9$
6. $B = 65°$
   $C = 45°$
   $c = 82$

9.3   <u>**Answer Key**</u>

1. Begin with the Law of Cosines
   $a = 5.1$
   $m\angle B = 23°$
   $m\angle C = 116°$
2. Begin with the Law of Sines
   $c = 7.9$
   $m\angle A = 27°$
   $m\angle C = 119°$
3. Begin with the Law of Cosines
   $m\angle A = 143°$
   $m\angle B = 20°$
   $m\angle C = 18°$ *since we rounded we get a sum of 181°
4. Begin with the Law of Cosines
   $m\angle A = 104°$
   $m\angle B = 47°$
   $m\angle C = 29°$
5. Begin with the Law of Cosines
   $b = 6.1$
   $m\angle A = 41°$
   $m\angle C = 54°$
6. Begin with the Law of Sines
   $a = 2.7$
   $c = 6.1$
   $m\angle B = 30°$

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