Solve an isosceles triangle problem.

1. $\triangle ABC$ is isosceles with $\angle A$ and $\angle C$ being the base angles. If $BC = 7$, what is the length of $\overline{AB}$?

2. $\triangle PQR$ is isosceles with $\angle P$ and $\angle R$ being the base angles. If $QR = 6$, what is the length of $\overline{PQ}$?

3. $\triangle ABC$ is isosceles with $\overline{AB}$ and $\overline{BC}$ being the legs. If the vertex angle has a measure of $40°$, what is $m\angle C$?

4. $\triangle ABC$ is isosceles with $\overline{AB}$ and $\overline{BC}$ being the legs. If a base angle has a measure of $75°$, what is $m\angle A$?

5. $\triangle PQR$ is isosceles with $\overline{QR}$ and $\overline{PR}$ being the legs. If $m\angle P = 54°$, what is $m\angle R$?

6. $\triangle TUV$ is isosceles with $\overline{TU}$ and $\overline{TV}$ being the legs. If $m\angle V = 75°$, what is $m\angle T$?

7. $\triangle PQR$ is isosceles with $\overline{QR}$ and $\overline{PR}$ being the legs. If $m\angle Q = 65°$, what is $m\angle R$?

8. $\triangle TUV$ is isosceles with $\overline{TU}$ and $\overline{TV}$ being the legs. If $m\angle T = 62°$, what is $m\angle U$?

9. $\triangle TUV$ is isosceles with $\overline{UV}$ and $\overline{TV}$ being the legs. If $m\angle U = 58°$, what is $m\angle T$?

10. $\triangle ABC$ is isosceles with $\overline{AB}$ and $\overline{AC}$ being the legs. If $m\angle A = 40°$, what is $m\angle C$?