$\qquad$

1. Use the figure to find the measure of each angle.
a. $m \angle E B C$
b. $m \angle A B D$ if $m \angle C B D=43^{\circ}$

c. $m \angle E B D$ if $m \angle C B D=43^{\circ}$
2. Use the figure to find $m \angle A B E$.

$m \angle A B E=$ $\qquad$
3. Use the figure to find $m \angle Q R P$.

$m \angle Q R P=$
4. Below is an incomplete proof that $\angle L \cong \angle R$ in the figure.

Complete the proof by providing the missing reasons.

Statement
a. $\overline{L M} \cong \overline{R M}, \overline{N M} \cong \overline{Q M}$
b. $\angle L M N \cong \angle R M Q$
c. $\triangle L M N \cong \triangle R M Q$
d. $\angle L \cong \angle R$
$\qquad$
$\qquad$

$\qquad$
5. In the figure, $\triangle A B C \cong \triangle A D C$. List three statements you can prove.

6. Given the figure, prove that $\overline{A B} \cong \overline{C B}$.

7. Use the figure below. Suppose that $m \angle 1+m \angle 6=90^{\circ}$ and $m \angle 7=140^{\circ}$.

a.) Find the measure of each numbered angle.
b.) Assume you know that the sum of the measures of the angles in a triangle is $180^{\circ}$. Find the measure of each angle around point $E$.

