$\qquad$ Date $\qquad$ Class $\qquad$

## Isosceles and Equilateral Triangles

Name the parts of the figure that match the vocabulary words.

1. base: $\qquad$
2. legs: $\qquad$ and $\qquad$
3. base angles: $\qquad$ and $\qquad$

4. vertex angle: $\qquad$
Fill in the blanks in Exercises 5-8 to complete each theorem.
5. If a triangle is equilateral, then it is $\qquad$ .
6. If two angles of a triangle are congruent, then the sides $\qquad$ those angles are congruent.
7. If two sides of a triangle are congruent, then the $\qquad$ opposite those sides are congruent.
8. If a triangle is equiangular, then it is $\qquad$ .
9. A forest ranger in Grand Canyon National Park wants to find the minimum distance across the canyon. She finds a place in the Marble Canyon area of the park where the sides seem close together. She takes measurements and draws this figure.
 Find the distance $A B$. (Hint: The angles in an equiangular triangle measure $60^{\circ}$.)

Find each value.

10. $\mathrm{m} \angle D=$ $\qquad$

12. $\mathrm{m} \angle L=$ $\qquad$

14. $\mathrm{m} \angle U=$ $\qquad$
11. $G I=$

13. $R Q=$ $\qquad$

15. $t=$ $\qquad$

## Part 2

Directions: Find the value of each variable.

2.

3.

5.

6.

8.


