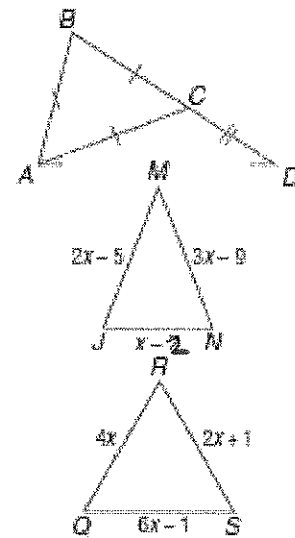


Classifying Triangles Worksheet

Name _____

For #1-3, identify the indicated type of triangle in the figure

1. Isosceles 2. Scalene 3. Equilateral



4. Find x , JM , MN and JN if $\triangle JMN$ is an isosceles triangle with $\overline{JM} \cong \overline{MN}$

$x =$ _____
 $JM =$ _____
 $MN =$ _____
 $JN =$ _____

5. Find x , QR , RS and QS if $\triangle QRS$ is an equilateral triangle

$x =$ _____
 $QR =$ _____
 $RS =$ _____
 $QS =$ _____

For #6-7, find the measures of the sides of $\triangle ABC$ and classify each triangle by its sides.

6. $A(-4,1)$, $B(5,6)$, $C(-3, -7)$

$AB =$ _____ $BC =$ _____ $CA =$ _____

Classification = _____

7. $A(-3, -1)$, $B(2, 1)$, $C(2, -3)$

$AB =$ _____ $BC =$ _____ $CA =$ _____

Classification = _____

For #8-11, find x and the measure of each side of the triangle. Draw a picture and show all work.

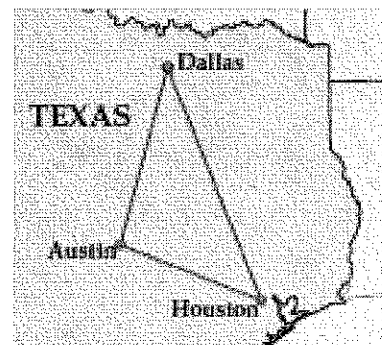
8. $\triangle GHJ$ is isosceles, with $\overline{HG} \cong \overline{JG}$, $GH = x + 7$, $GJ = 3x - 5$, and $HJ = x - 1$

9. $\triangle MPN$ is equilateral with $MN = 3x - 6$, $MP = x + 4$, and $NP = 2x - 1$

10. $\triangle QRS$ is equilateral. QR is two less than two times a number. RS is six more than the number. QS is ten less than three times the number.

11. $\triangle JKL$ is isosceles with $\overline{KJ} \cong \overline{LJ}$. JL is five less than two times a number. JK is three more than the number. KL is one less than the number. Find the measure of each side.

12. The total distance from Houston to Austin to Dallas and back to Houston is about 600 miles. The distance from Austin to Houston is 34 miles less than the distance from Austin to Dallas. The distance from Houston to Dallas is 77 miles greater than the distance from Houston to Austin.



- 1) Draw and label the diagram.
- 2) Find the distance between the cities.
- 3) Classify the triangle that connects Houston, Dallas and Austin.