Name _____ Date _____
Mr. Schlansky Geometry

Types of Triangles with Algebra

1. In ΔABC, $m\angle A = 3x$, $m\angle B = 4x - 19$, and $m\angle C = 3x - 1$. Which statement is true? ΔABC *is*

(1) Isosceles (3) Acute

(2) Obtuse (4) Right

2. The angles of a triangle are in the ratio 2:2:5. The triangle must be:

(1) Scalene (3) Acute

(2) Right (4) Obtuse

3. The measures of the angles of a triangle are 7x + 6, 9x – 20, and 3x + 4. The triangle is:

(1) acute and scalene (3) obtuse and isosceles

(2) acute and isosceles (4) obtuse and scalene

4. The measure of the angles of a triangle are 5x + 2, 5x – 7, and 4x + 17. The triangle is:

(1) acute (3) isosceles

(2) right (4) obtuse

5. The measures of the angles of a triangle are x – 2, 5x + 13, and 3x – 2. The triangle is:
(1) isosceles (3) obtuse
(2) right (4) acute

6. The measure of the angles of a triangle are 7x + 9, 2x + 3, and 4x – 27. The triangle is:
(1) acute and scalene (3) isosceles and acute
(2) right and acute (4) obtuse and isosceles

7. In $\triangle ABC$, $m\angle A = 3x + 1$, $m\angle B = 4x - 17$, and $m\angle C = 5x - 20$. Which type of triangle is $\triangle ABC$?
1) right
2) scalene
3) isosceles
4) equilateral

8. Triangle *PQR* has angles that are in the ratio 2:3:5. Which type of triangle is $\triangle PQR$?
1) acute
2) isosceles
3) obtuse
4) right