Lesson 4.6 Practice: Isosceles and Equilateral Triangles

School Launch · Geometry · Unit 4: Triangles and Congruence · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. The vertex angle of an isosceles triangle is $104°$. Find each base angle. EASY

2. The vertex angle of an isosceles triangle is $24°$. Find each base angle. EASY

3. The vertex angle of an isosceles triangle is $152°$. Find each base angle. EASY

4. In isosceles $\triangle PQR$, the legs measure $5x - 2$ and $6x - 8$, and the perimeter is 60. Find x, the legs and the base. MEDIUM

5. In isosceles $\triangle PQR$, the legs measure $5x + 1$ and $x + 37$, and the perimeter is 96. Find x, the legs and the base. MEDIUM

6. In isosceles $\triangle PQR$, the legs measure $4x + 3$ and $5x - 4$, and the perimeter is 66. Find x, the legs and the base. MEDIUM

7. In isosceles $\triangle PQR$, the legs measure $5x - 2$ and $4x + 6$, and the perimeter is 91. Find x, the legs and the base. MEDIUM

8. In isosceles $\triangle PQR$, the legs measure $2x + 5$ and $6x - 27$, and the perimeter is 52. Find x, the legs and the base. HARD

9. In isosceles $\triangle PQR$, the legs measure $5x - 3$ and $3x + 5$, and the perimeter is 53. Find x, the legs and the base. HARD

10. In isosceles $\triangle PQR$, the legs measure $5x + 1$ and $3x + 21$, and the perimeter is 112. Find x, the legs and the base. HARD