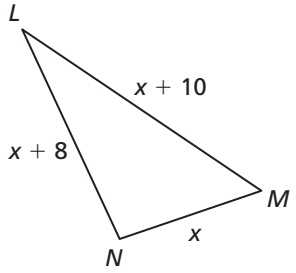
Name _____ Date _____

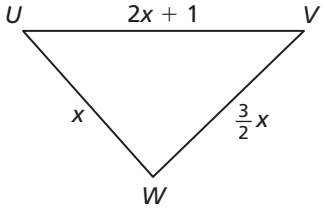
6.6 Practice B

In Exercises 1 and 2, list the angles of the given triangle from smallest to largest.

1.

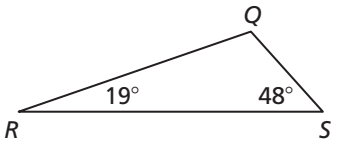


2.

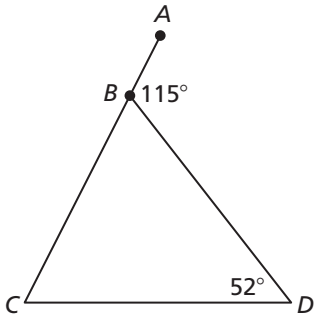


In Exercises 3 and 4, list the sides of the given triangle from shortest to longest.

3.



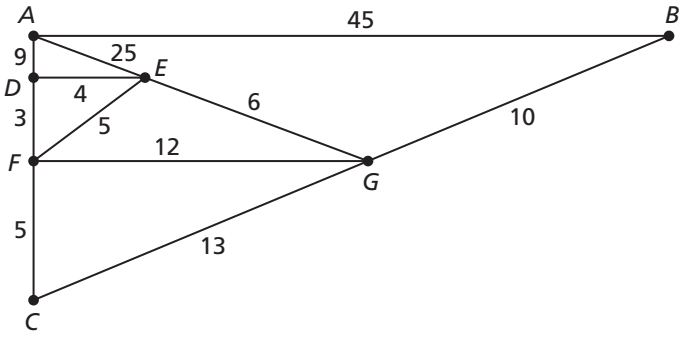
4.



5. Write an indirect proof that a right triangle has exactly two acute angles.

6. Is it possible to construct a triangle with side lengths $5(2x - 6)$, $3x + 80$, and $x^2 + 41$ if $x = 9$? Explain.

7. The figure shows several triangles, with labeled side lengths. Which of the triangles are labeled correctly? Explain.



8. Your friend claims that if you are given the three angle measures of a triangle, you can construct a triangle that obeys the Triangle Inequality Theorem, even if you are not given any of the side lengths. Is your friend correct? Explain your reasoning.