Ch 9&6 Triangle Study Guide

Geometry

6.5 Inequalities in One Triangle	Using $\triangle ABC$, list the parts in order of shortest to longest.

1) $\overline{AB} = 12$ (list angles)   2) $\angle A = 60°$ (list sides)
$\overline{BC} = 19$ $\angle C = 50°$
$\overline{CA} = 10$
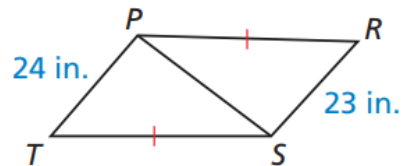
3) Can a triangle have the following sides?   4) Describe the possible lengths of the
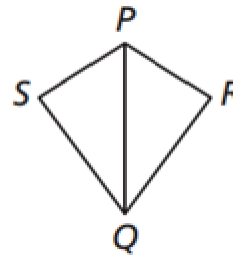   (justify)   third side of the triangle given the
             10, 5, 5   lengths of the other two sides.   18, 6

6.6 Inequalities in Two Triangles

1) Given that $\overline{ST} \cong \overline{PR}$, how $\angle PST$ compare to $\angle SPR$?
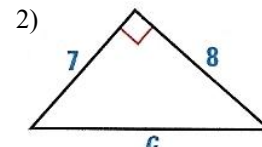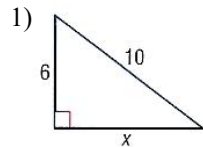
24 in.   23 in.

2) If $PR = PS$ and
$m\angle QPR < m\angle QPS$
    Which is longer?
    $\overline{SQ}$ or $\overline{RQ}$

3) If $PR = PS$ and
$\overline{RQ} > \overline{SQ}$
    Which is larger?
    $\angle RPQ$ or $\angle SPQ$.

9.1 The Pythagorean Theorem

Solve for the variable.

1)   6, 10, x 2)   7, 8, c

Decide if the numbers make a triangle. If so classify it.
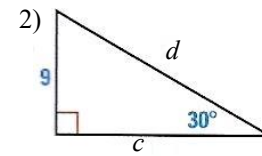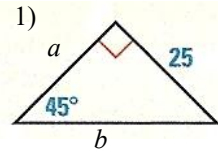
3) 6, 2, 5   4) 10, 6, 3   5) 3, 5, 4
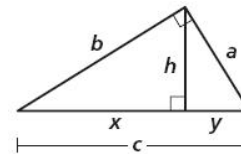
| 9.2 Special Right Triangles | Solve for the variables. |
| | 1) |

3) If the legs of a square equal 6, what is the length of the diagonal?

9.3 Similar Right Triangles

1) Find the geometric mean for 9 and 12

Complete the proportions using the picture

2) $\dfrac{a}{x} = \dfrac{?}{a}$

3) $\dfrac{y}{?} = \dfrac{h}{x}$

4) $\dfrac{b}{a} = \dfrac{h}{?}$

Find the variables

5)

6)

7)