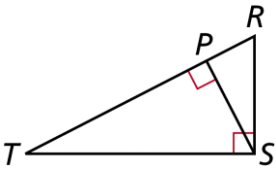


1. Complete the similarity statement comparing the three triangles:

Δ _____~ Δ _____~ ΔPRS



2. List the four sets of Pythagorean Triples:

a. _____ - _____ - _____

b. _____ - _____ - _____

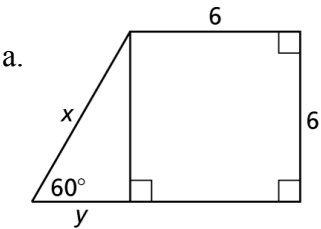
c. _____ - _____ - _____

d. _____ - _____ - _____

3. In a right triangle, one leg is a length of 6 and the hypotenuse is a length of 13. Find the length of the remaining leg. Draw a diagram. Give answer in exact form, simplified completely.

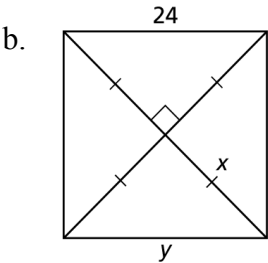
4. The lengths of three segments are 4, 9, and $\sqrt{67}$. Verify that these segments can form a triangle (SHOW REQUIRED WORK!!!) If so, determine whether the triangle is acute, right, or obtuse.

5. Find the values of x and y in each diagram. Give answers in exact form, simplified completely.



x = _____

y = _____



x = _____

y = _____

6. Find the geometric mean of the pair of numbers.
Give EXACT answers, simplified completely.

3 and 17

7. Find the following EXACT ratios, simplified!:
(hint: you can use your answers from #5 ☺)

a) $\cos (60^\circ)$ = _____

b) $\tan (30^\circ)$ = _____

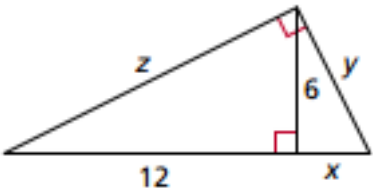
c) $\tan (45^\circ)$ = _____

8. Find x, y, and z. Give EXACT lengths, simplified completely. (not approximate)

x = _____

y = _____

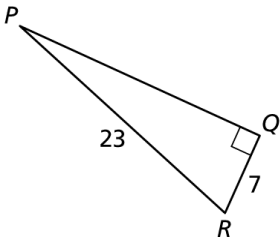
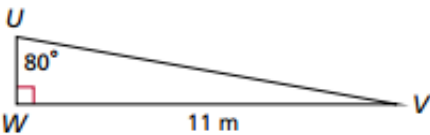
z = _____



9. Find the following. Round to two decimal places.

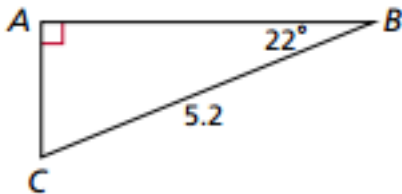
a) UV = _____ UW = _____

b) $m\angle P$ = _____ $m\angle R$ = _____

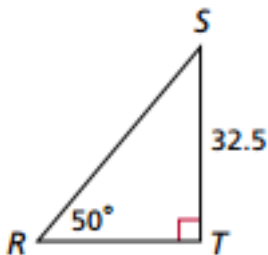


10. Solve the triangle. Round lengths and angle measures to two decimal places.

a) $m\angle C =$ _____
 $AB =$ _____
 $AC =$ _____

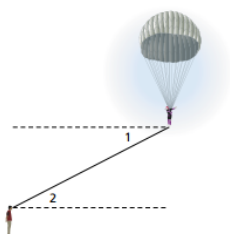


b) $m\angle S =$ _____
 $SR =$ _____
 $RT =$ _____



11. Classify $\angle 1$ as an angle of elevation or depression: _____

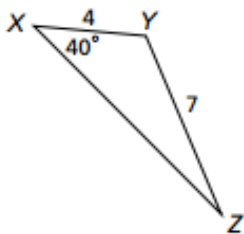
from _____ to _____



12. When the angle of elevation to the sun is 82° , a monument casts a shadow that is 5.1 feet long. What is the height of the monument to the nearest foot?

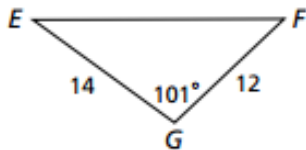
13. Solve the triangle. Round lengths and angle measures to two decimal places.

$m\angle Z =$ _____
 $m\angle Y =$ _____
 $XZ =$ _____



14. Solve the triangle. Round lengths and angle measures to two decimal places.

$m\angle E =$ _____
 $m\angle F =$ _____
 $EF =$ _____



15. Find the area of the triangle from #14.