Quiz

Geometry Special Right Triangle Formula Review

1) Pythagorean Theorem _____

2) Pythagorean Triple: All sides of a right triangle are _____

3) Acute, Right, Obtuse: Classifying triangles

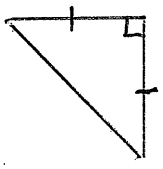
Acute _____

Right _____

Obtuse _____

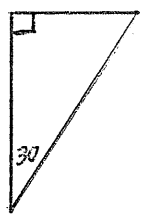
4) 45-45-90 Triangles (Fill in rest of diagram)

leg leg hypotenuse



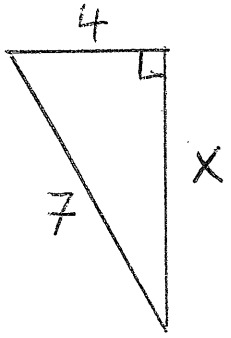
5) 30-60-90 Triangles (Fill in rest of diagram)

long short hypotenuse



Review Questions

6) Find missing side



$x =$ _____

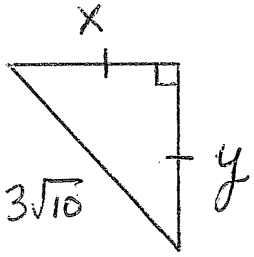
7) Determine if triangle is acute, right, or obtuse.

4, 5, 7

Justify Answer

_____

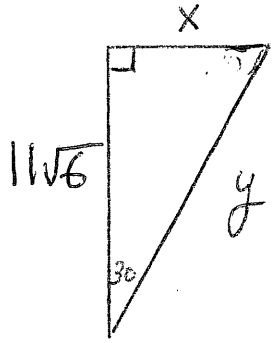
8) Find x and y



$x =$ _____

$y =$ _____

9) Find x and y



$x =$ _____

$y =$ _____

KEY

Geometry Special Right Triangle Formula Review Quiz

1) Pythagorean Theorem $a^2+b^2=c^2$

2) Pythagorean Triple: All sides of a right triangle are whole numbers

3) Acute, Right, Obtuse: Classifying triangles

Acute $c^2 < a^2+b^2$

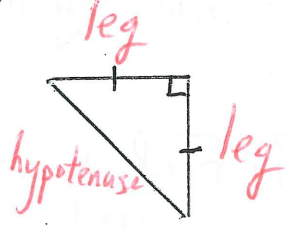
Right $c^2 = a^2+b^2$

Obtuse $c^2 > a^2+b^2$

4) 45-45-90 Triangles (Fill in rest of diagram)

leg = leg hypotenuse

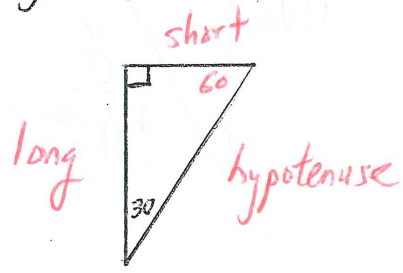
$\times\sqrt{2}$ $\div\sqrt{2}$



5) 30-60-90 Triangles (Fill in rest of diagram)

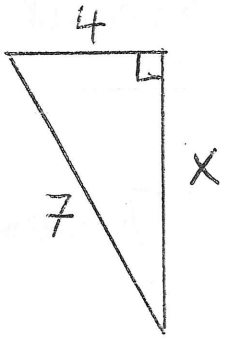
long short hypotenuse

$\div\sqrt{3}$ $\times 2$ $\times\sqrt{3}$ $\div 2$



Review Questions

6) Find missing side



$4^2+x^2=7^2$

$x^2=7^2-4^2$

$x^2=49-16$

$x^2=33$

$x=\sqrt{33}$

$x=\sqrt{33}$

7) Determine if triangle is acute, right, or obtuse. Justify Answer

4, 5, 7

7^2 4^2+5^2

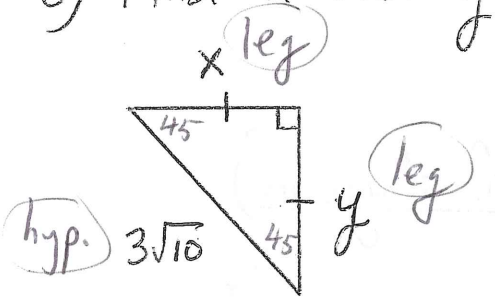
49 $16+25$

$49>41$

obtuse triangle

since $c^2>a^2+b^2$

8) Find x and y



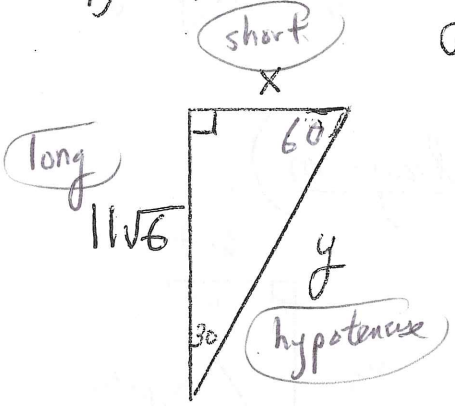
$x=\frac{3\sqrt{10}}{\sqrt{2}}=3\sqrt{5}$

leg = leg hypotenuse (×√2 / ÷√2)

$x=3\sqrt{5}$

$y=3\sqrt{5}$

9) Find x and y



$x=\frac{11\sqrt{6}}{\sqrt{3}}=11\sqrt{2}$

$y=11\sqrt{2}\cdot 2=22\sqrt{2}$

long short hypotenuse (÷√3 / ×√3, ×2 / ÷2)

$x=11\sqrt{2}$

$y=22\sqrt{2}$