

8-4 Homework #3

I. Determine if the given side lengths could form a right, acute or obtuse triangle. Show all work.

1) 7, 20, 21

Acute
0

2) 8, 14, 17

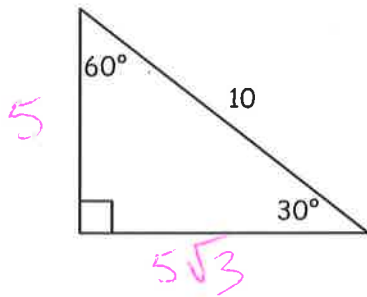
Obtuse

3) 4, $4\sqrt{3}$, 8

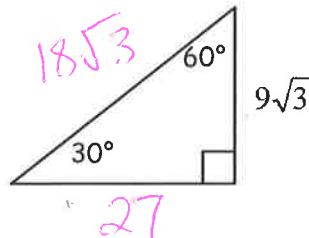
Right

II. Solve for the missing sides in each right triangle. Leave all answers in radical form.

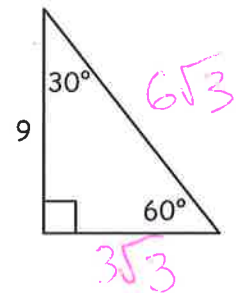
4)



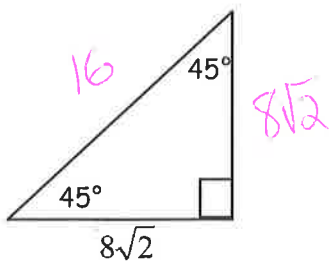
5)



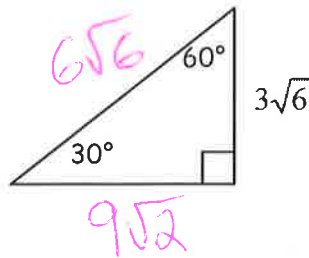
6)



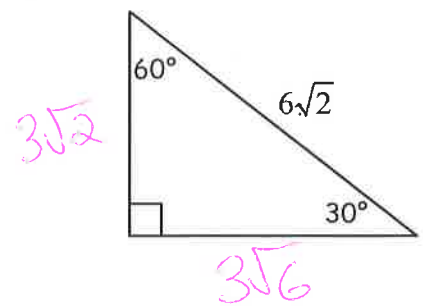
7)



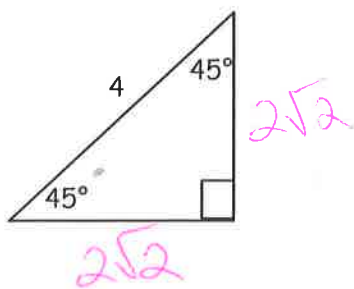
8)



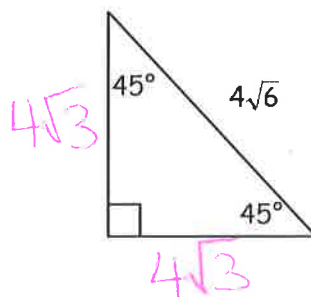
9)



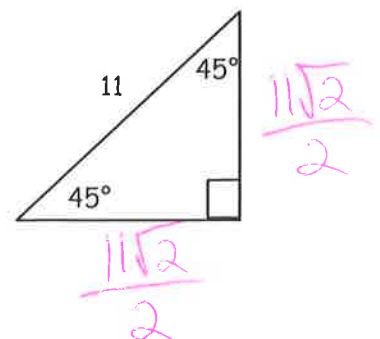
10)



11)



12)



Geometry/Trig
8-4 Special Right Triangles Homework #2

III. Solve for the missing lengths. Leave all answers in simplified radical form.

13) An equilateral triangle has a side length of 30 inches. What is the length of the altitude?

$15\sqrt{3}$ inches

14) The altitude of an equilateral triangle is equal to 6cm. What is the side length of the triangle and what is the perimeter?

Side length : $4\sqrt{3}$ cm

Perimeter : $10\sqrt{3}$ cm

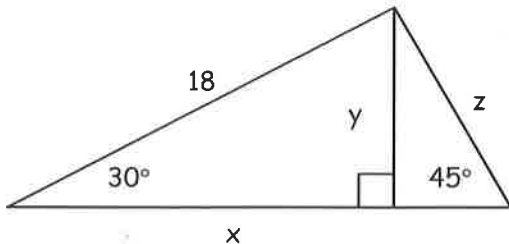
15) A square has a diagonal that is 12mm long. What is the perimeter of the square?

$P =$ ~~24~~
 $24\sqrt{2}$ mm

16) The diagonals of a rhombus have lengths 10cm and 24cm. What is the length of a side of the rhombus?

13 cm

17)

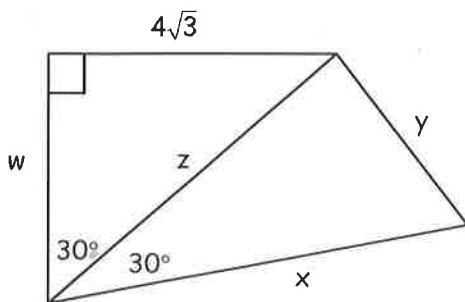


$x =$ $9\sqrt{3}$

$y =$ 9

$z =$ $9\sqrt{2}$

18)



$w =$ 12

$x =$ 16

$y =$ 8

$z =$ $8\sqrt{3}$