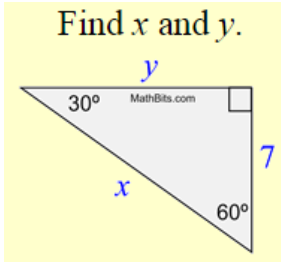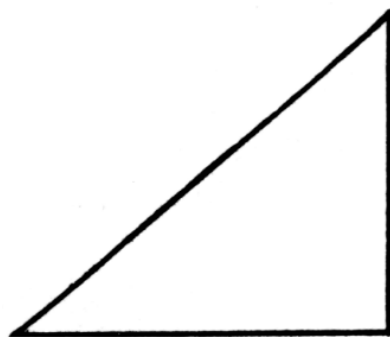We will now look at...**45-45-90 Triangles!**

But first...a DO NOW!

Find x and y.

y

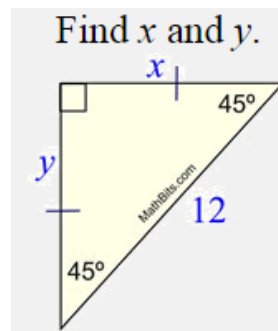30°   MathBits.com

7

x

60°
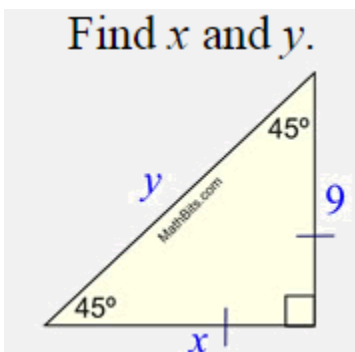
We will now look at a **different** Special Right Triangle that can be extremely useful in many instances! We will construct this triangle with a square:

MathBits.com

The 45-45-90 Triangle!

Time for some examples:

Find x and y.

45°

y

MathBits.com

9

45°

x

Find x and y.

x

45°

y

MathBits.com

12

45°
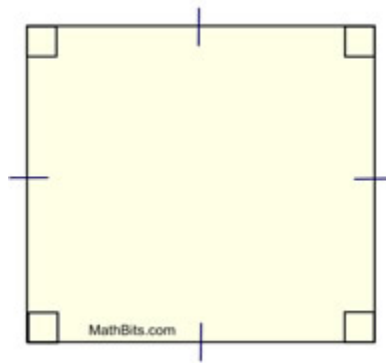
Now you try solving for the missing values:

1)

$\sqrt{2}$

y

45°

x

2)

8

m 45° n

3)

45° $9\sqrt{2}$

b

a

4)

x

9

45°

y

5)

x y

45°

2

6)

a

$5\sqrt{2}$

45°

b

7)

u v

45°

10

8)

u

$\dfrac{9\sqrt{2}}{2}$

45°

v

9)

45° $3\sqrt{5}$

y

x

10)

y

45°

5

x