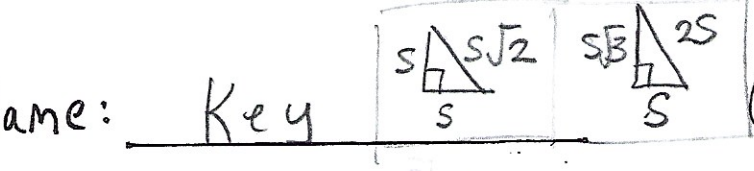
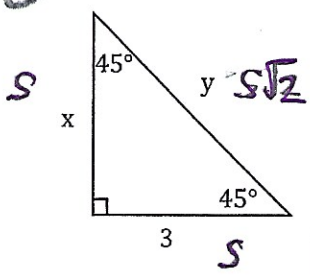
Ch 8.3 Name: Key Class: _____



Label each special right triangle, and find the missing sides.

1. $S = 3$

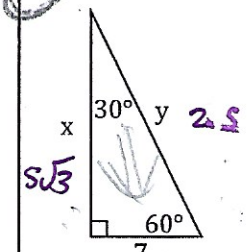


$x = 3$

$y = 3\sqrt{2}$

3, $3\sqrt{2}$

2.



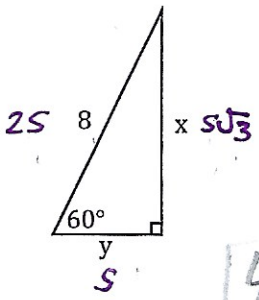
$S = 7$

$x = 7\sqrt{3}$

$y = 14$

$7\sqrt{3}$, 14

3.



$2s = 8$

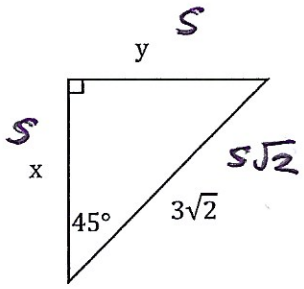
$s = 4$

$x = 4\sqrt{3}$

$y = 4$

4, $4\sqrt{3}$

4.



$s\sqrt{2} = 3\sqrt{2}$

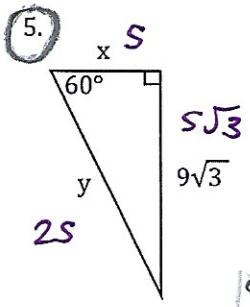
$s = 3$

$x = 3$

$y = 3$

3, 3

5.



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

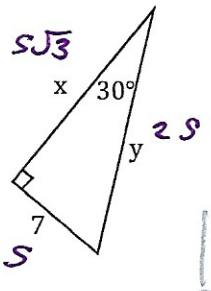
$s = 9$

$x = 9$

$y = 18$

9, 18

6.



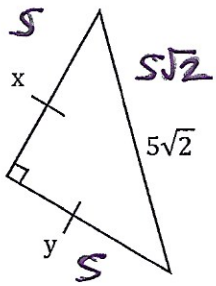
$s = 7$

$x = 7\sqrt{3}$

$y = 14$

$7\sqrt{3}$, 14

7.



$s\sqrt{2} = 5\sqrt{2}$

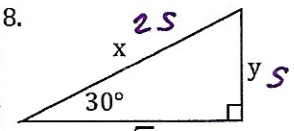
$s = 5$

$x = 5$

$y = 5$

5, 5

8.



$s\sqrt{3}$

$s\sqrt{3} = 6\sqrt{3}$

$s = 6$

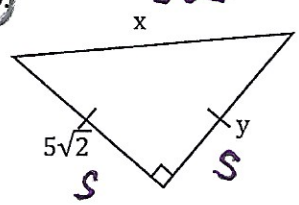
$x = 2 \cdot 6 = 12$

$y = 6$

12, 6

Bubble all the correct answers from above. Don't bubble incorrect answers. x, y

● 9,18 ○ 6,12 ● $7\sqrt{3}$,14 ○ $5\sqrt{2}$,5 ○ $3\sqrt{2}$,3 ● 6,16 ○ 5,13 ● 9,18 ● 3,3 ○ 3,$3\sqrt{3}$ ● 3,$3\sqrt{2}$ ● 5,5 ○ 6,6 ● 4,$4\sqrt{3}$

9. 

$S\sqrt{2}$

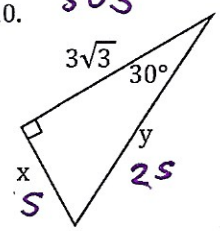
$S = 5\sqrt{2}$

$y = \boxed{5\sqrt{2}}$

$X = 5\sqrt{2} \cdot \sqrt{2}$
$= 5 \cdot 2$
$= \boxed{10}$

$\boxed{10, 5\sqrt{2}}$

Note
$\sqrt{2} \cdot \sqrt{2}$
$\sqrt{2^2}$
$\boxed{2}$

10. 

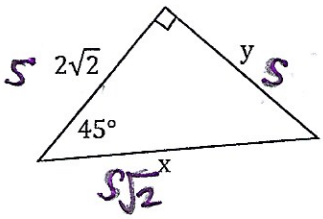
$S\sqrt{3}$

$S\sqrt{3} = 3\sqrt{3}$
$S = 3$

$X = \boxed{3}$

$y = 2S$
$= 2(3)$
$= \boxed{6}$

$\boxed{3, 6}$

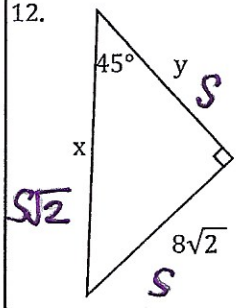
11. 

$S = 2\sqrt{2}$

$y = \boxed{2\sqrt{2}}$

$X = 2\sqrt{2} \cdot \sqrt{2}$
$= \boxed{4}$

$\boxed{4, 2\sqrt{2}}$

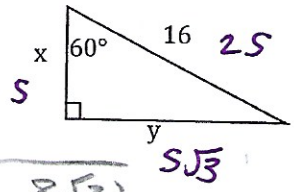
12. 

$S = 8\sqrt{2}$

$y = \boxed{8\sqrt{2}}$

$X = 8\sqrt{2} \cdot \sqrt{2}$
$= \boxed{16}$

$\boxed{16, 8\sqrt{2}}$

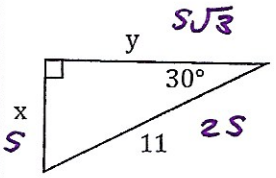
13. 

$2S = 16$
$S = 8$

$X = \boxed{8}$

$y = \boxed{8\sqrt{3}}$

$\boxed{8, 8\sqrt{3}}$

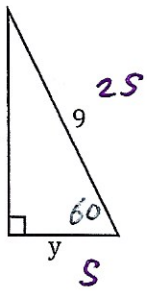
14. 

$2S = 11$
$S = 5.5$

$X = \boxed{5.5}$

$y = \boxed{5.5\sqrt{3}}$

$\boxed{5.5, 5.5\sqrt{3}}$

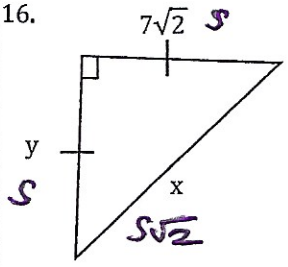
15. 

$2S = 9$
$S = 4.5$

$X = \boxed{4.5\sqrt{3}}$

$y = \boxed{4.5}$

$\boxed{4.5\sqrt{3}, 4.5}$

16. 

$S = 7\sqrt{2}$

$y = \boxed{7\sqrt{2}}$

$X = 7\sqrt{2}\sqrt{2}$
$= 7 \cdot 2$
$= \boxed{14}$

$\boxed{14, 7\sqrt{2}}$

Bubble all the correct answers from above. Don't bubble incorrect answers.

○ $7\sqrt{2}$,7 ● 14,$7\sqrt{2}$ ● 8,$8\sqrt{3}$ ● 16,$8\sqrt{2}$ ○ $2\sqrt{3}$,6 ○ $3\sqrt{2}$,6 ○ 4,$2\sqrt{3}$ ● 4,$2\sqrt{2}$ ● 10,$3\sqrt{2}$ ○ 10,$3\sqrt{3}$ ○ 9,$9\sqrt{3}$ ● 3,6 ● 5.5, $5.5\sqrt{3}$ ● 4.5,$4.5\sqrt{3}$