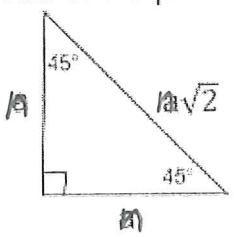
Geometry 3313
10.2 Special Right Triangles Practice - Day 3

Name Key

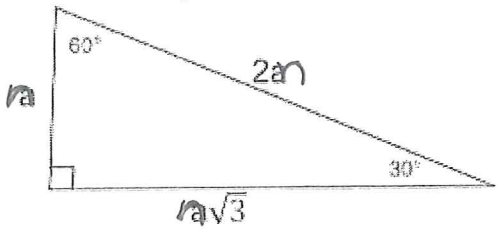
Before quiz #1-7

Special Right Triangles

Isosceles Right Triangle
45°--45°--90°
Half of a square

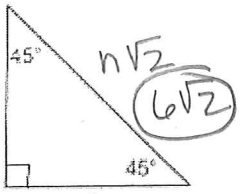


30°--60°--90°
Half of an equilateral triangle



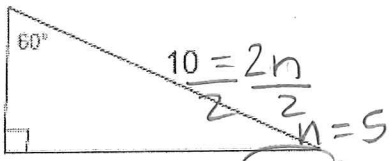
Find the missing sides.

1. $6 = n$



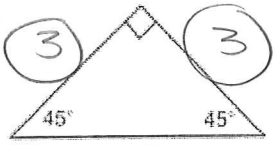
$6 = n$

2. $5 = n$



$n\sqrt{3} = 5\sqrt{3}$

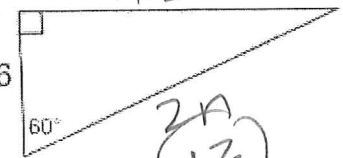
3.



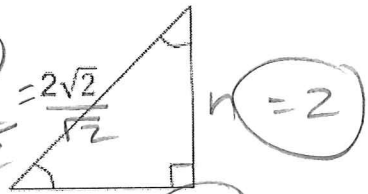
$3\sqrt{2} = n\sqrt{2}$

$n = 3$

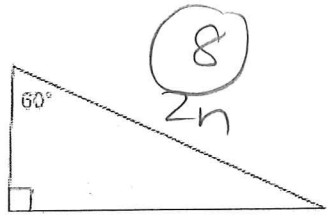
4. $n = 6$



5. $\frac{n\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{\sqrt{2}}$ $n = 2$

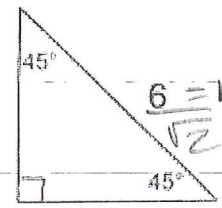


6. $4 = n$



$\frac{4\sqrt{3}}{\sqrt{3}} = \frac{n\sqrt{3}}{\sqrt{3}}$

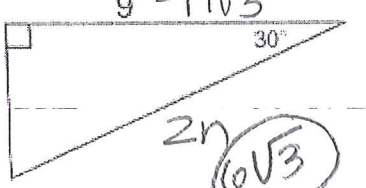
$4 = n$

7. 

$\frac{6}{\sqrt{2}} = \frac{n\sqrt{2}}{\sqrt{2}}$

$n = \frac{6}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{6\sqrt{2}}{2}$

$n = 3\sqrt{2}$

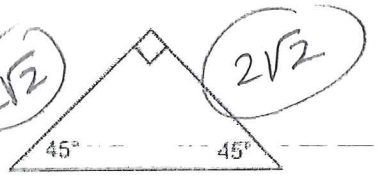
8. 

$9 = n\sqrt{3}$

$\frac{9}{\sqrt{3}} = \frac{n\sqrt{3}}{\sqrt{3}}$

$\frac{9\sqrt{3}}{3} = n$

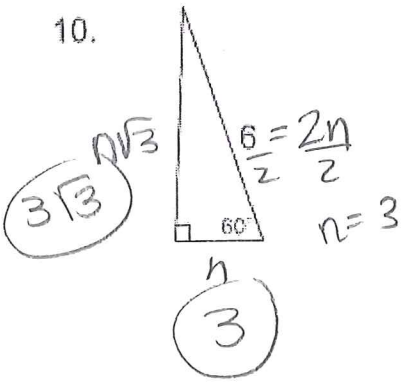
$3\sqrt{3} = n$

9. 

$\frac{4}{\sqrt{2}} = \frac{n\sqrt{2}}{\sqrt{2}}$

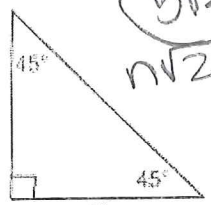
$n = \frac{4}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{4\sqrt{2}}{2}$

$n = 2\sqrt{2}$

10. 

$\frac{6}{2} = \frac{2n}{2}$

$n = 3$

11. 

12.

$\frac{12}{\sqrt{3}} = \frac{n\sqrt{3}}{\sqrt{3}}$

$n = \frac{12}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

$n = \frac{12\sqrt{3}}{3}$

$n = 4\sqrt{3}$

Cross out the correct answers. The remaining letters (one per space) complete the statement.

5 EQ	9 HA	$6\sqrt{2}$ UA	3 LT	10 LF	$3\sqrt{2}$ OT	3 HE	$4\sqrt{3}$ SQ	$3\sqrt{2}$ UA	12 RE	$2\sqrt{3}$ RO
$6\sqrt{3}$ OT	$5\sqrt{3}$ OF	25 TH	$3\sqrt{3}$ ER	$6\sqrt{2}$ AD	5 IU	20 EH	3 SQ	$3\sqrt{3}$ FT	36 YP	2 PY
11 OT	4 TH	16 EN	6 AG	8 OR	32 US	$5\sqrt{2}$ AS	2 TH	7 E.	$8\sqrt{3}$ T.	$2\sqrt{2}$ S.

In a 30 – 60 degrees right triangle, the side opposite the 30-degree angle is

HALF THE HYPOTENUSE