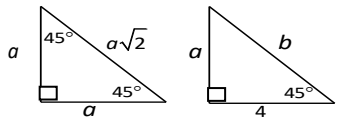
Name: _____ Date: _____ Hour: _____

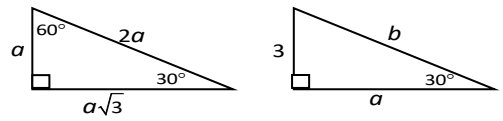
Special Right Triangles

Isosceles Right Triangle



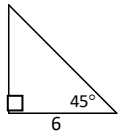
$a = 4$
$b = 4\sqrt{2}$

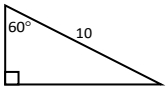
30-60-90 Triangle

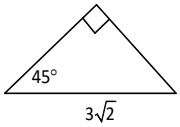


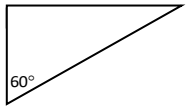
$a = 3\sqrt{3}$
$b = 2 \cdot 3 = 6$

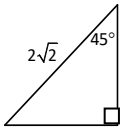
Find the missing sides.

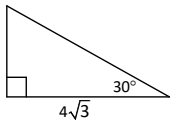
1. 

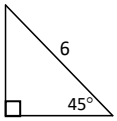
2. 

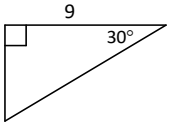
3. 

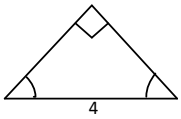
4. 

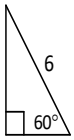
5. 

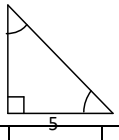
6. 

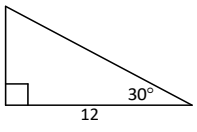
7. 

8. 

9. 

10. 

11. 

12. 

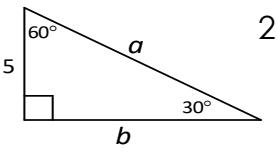
Cross out the correct answers. The remaining letters (one per space) complete the statement.

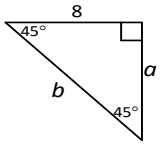
5 EQ	9 HA	$6\sqrt{2}$ UA	3 LT	10 LF	$3\sqrt{2}$ OT	3 HE	$4\sqrt{3}$ SQ	$3\sqrt{2}$ UA	12 RE	$2\sqrt{2}$ RO	In a 30-60-90 degrees right triangle, the side opposite the 30-degree angle is
$6\sqrt{3}$ OT	$5\sqrt{3}$ OF	25 TH	$3\sqrt{3}$ ER	$6\sqrt{3}$ AD	5 IU	20 EH	3 SO	$3\sqrt{3}$ FT	36 YP	2 PY	
11 OT	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.	

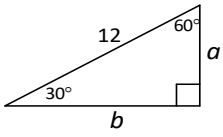
___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

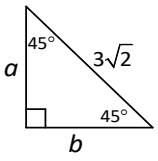
Special Right Triangles

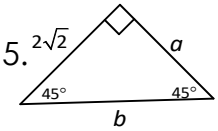
Use the 30-60-90 and 45-45-90 triangle relationships to solve for the missing sides. Use the answers to reveal the name of the team that Abraham M. Saperstein established and sent on the road in 1927.

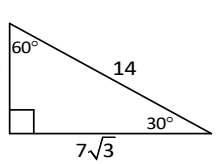
1. 

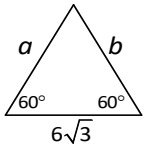
2. 

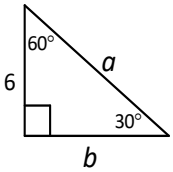
3. 

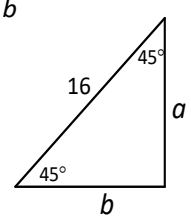
4. 

5. 

6. 

7. 

8 

9. 

8	$2\sqrt{2}$	3	6	$5\sqrt{3}$	4	7	12	$8\sqrt{2}$	10	$6\sqrt{3}$
A	B	E	G	H	L	M	O	R	S	T

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

8b 1b 4a 1b 2a 9b 5b 4b 6a

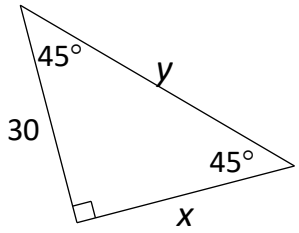
___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

3a 5b 8a 5a 4a 7a 2b 8a 7b 3b 4b 9a 1a

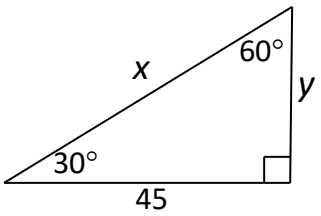
Chapter 8
Practice Worksheet 1

(Use with section 8-3)

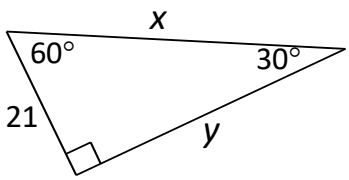
Find the values of *x* and *y* in each of the following triangles.

1. 

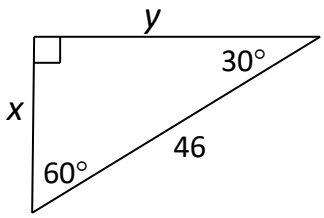
x = _____ y = _____

2. 

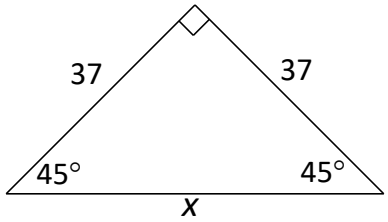
x = _____ y = _____

3. 

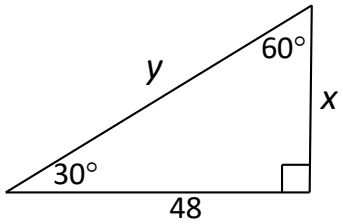
x = _____ y = _____

4. 

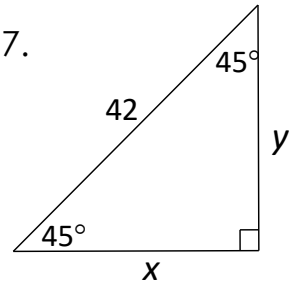
x = _____ y = _____

5. 

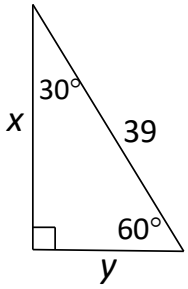
x = _____

6. 

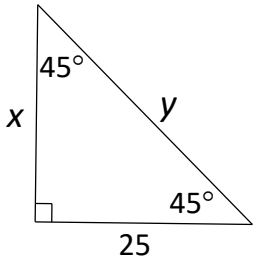
x = _____ y = _____

7. 

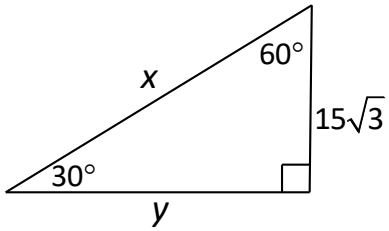
x = _____ y = _____

8. 

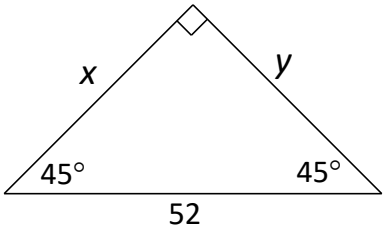
x = _____ y = _____

9. 

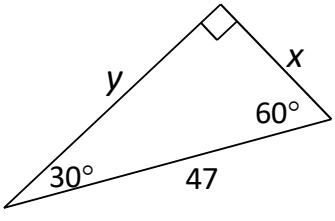
x = _____ y = _____

10. 

x = _____ y = _____

11. 

x = _____ y = _____

12. 

x = _____ y = _____

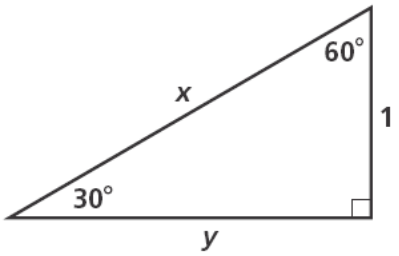
Name: _____ Hour: _____ Date: _____

Practice 8-3

Special Right Triangles

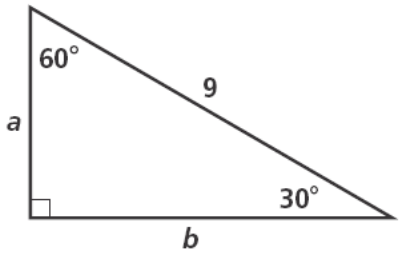
Find the value of each variable. Leave your answers in simplest radical form.

1.



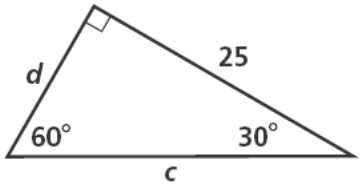
x = _____ ***y*** = _____

2.



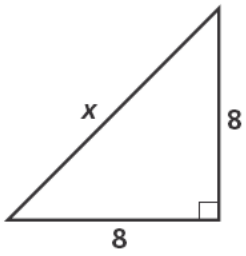
a = _____ ***b*** = _____

3.



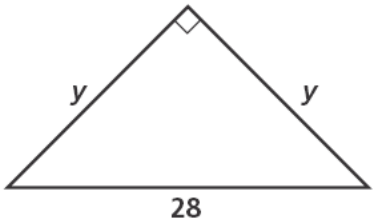
c = _____ ***d*** = _____

4.



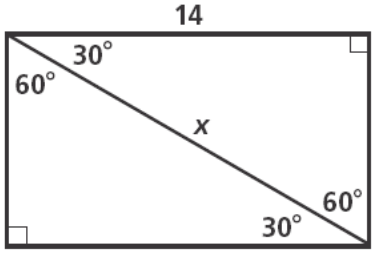
x = _____

5.



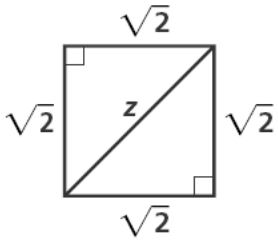
y = _____

6.



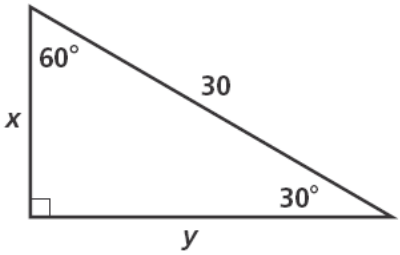
x = _____

7.



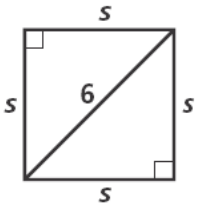
z = _____

8.



x = _____ ***y*** = _____

9.



s = _____

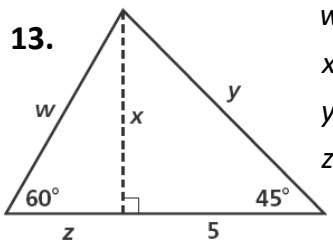
10. Find the length to the nearest centimeter of the diagonal of a square with 30 cm on a side.

11. The hypotenuse of an isosceles right triangle is 8.4 in. find the length of a side to the nearest tenth.

12. In a 30°- 60° - 90° triangle, the shorter leg is 6 ft long. Find the length of the other two sides to the nearest tenth.

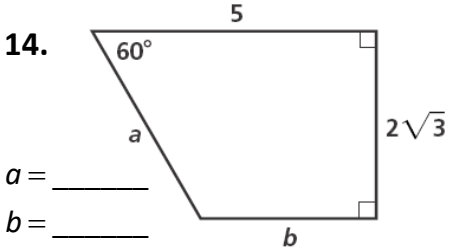
Algebra **Find the value of each variable. Leave your answers in simplest radical form.**

13.



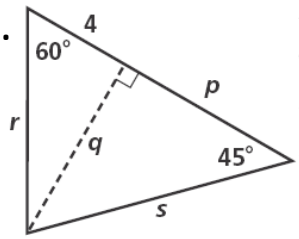
w = _____
x = _____
y = _____
z = _____

14.



a = _____
b = _____

15.



p = _____
q = _____
r = _____
s = _____