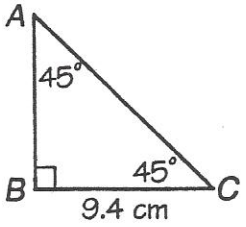
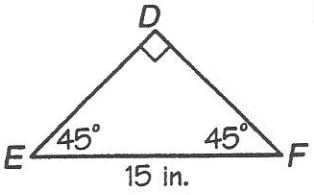
Why Did the Tennis Player Decide to Get Glasses?

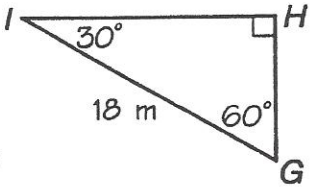
Find the length indicated for each exercise (some answers are rounded). Write the letter of the answer in the box containing the exercise number.



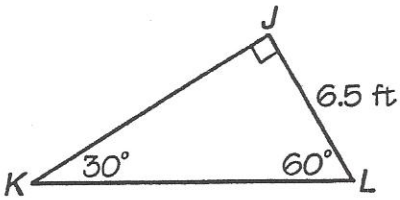
1. $AB =$
2. $CA =$



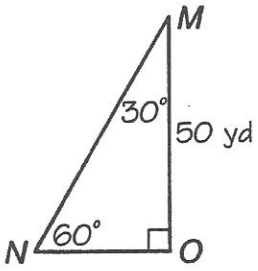
3. $DE = FD =$



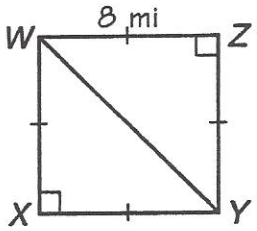
4. $GH =$
5. $HI =$



6. $KL =$
7. $JK =$



8. $NO =$
9. $MN =$



10. $WY =$

Answers 1-9		Answers 10-18	
T	62.2 yd	W	12.5 cm
E	13 ft	T	23.5 ft
F	31.1 yd	S	34.6 ft
O	13.3 cm	N	9.2 m
L	57.8 yd	G	11.3 mi
U	11.5 ft	E	79.2 ft
S	15.6 m	I	6.2 in.
V	11.2 in.	U	15.6 ft
E	9.4 cm	H	12.2 cm
I	11.3 ft	S	9.6 m
K	13.8 cm	B	21.2 ft
N	9 m	R	81.5 ft
H	28.9 yd	D	1.6 mi
M	15.2 m	E	6.5 in.
A	10.6 in.	Y	2.1 mi

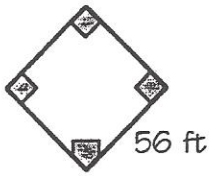
11. In a 45°–45° right triangle, the length of a leg is 4.6 in. How long is the hypotenuse?

12. In a 45°–45° right triangle, the length of the hypotenuse is 22 ft. How long is a leg of the triangle?

13. In a 30°–60° right triangle, the length of the side opposite the 30° angle is 7.2 cm. How long is the side opposite the 60° angle?

14. In a 30°–60° right triangle, the length of the side opposite the 60° angle is 8.3 m. How long is the hypotenuse?

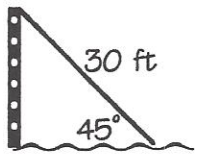
15. The bases of a softball diamond are 56 ft apart. How far is it from home plate to second base?



16. A hillside is inclined at an angle of 30° with the horizontal. How much elevation has Scott gained after hiking 3.2 mi up the hill?

17. A 40-ft cable extends from the top of an electrical tower to the ground. If the cable forms a 60° angle with the ground, how tall is the tower?

18. A 30-ft waterslide forms a 45° angle with the surface of the water. How high is the top of the slide?



8	11	13	3	5	17	1	15	7	4	10	16	2	12	18	9	6	14

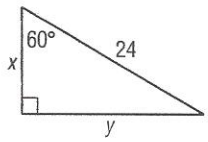
NAME _____ DATE _____ PERIOD _____

8-3 Skills Practice

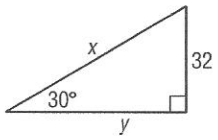
Special Right Triangles

Find the exact values of x and y.

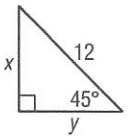
1.



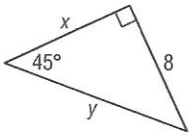
2.



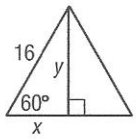
3.



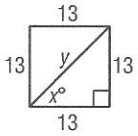
4.



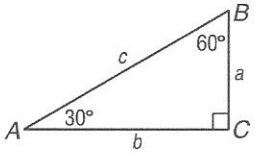
5.



6.



For Exercises 7–9, use the figure at the right.

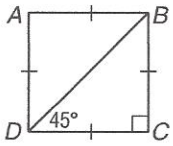


7. If $a = 11$, find b and c.

8. If $b = 15$, find a and c.

9. If $c = 9$, find a and b.

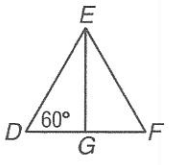
For Exercises 10 and 11, use the figure at the right.



10. The perimeter of the square is 30 inches. Find the length of $\overline{BC}$.

11. Find the length of the diagonal $\overline{BD}$.

12. The perimeter of the equilateral triangle is 60 meters. Find the length of an altitude.



13. $\triangle GEC$ is a 30°-60°-90° triangle with right angle at E, and $\overline{EC}$ is the longer leg. Find the coordinates of G in Quadrant I for $E(1, 1)$ and $C(4, 1)$.