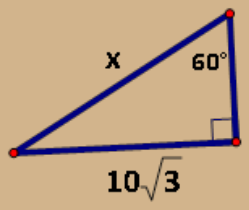
REVIEW

SRT.5-9

Geometric Mean, Special Right Triangles, and Trigonometry

1.

The value for x is:



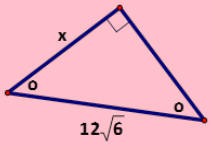
2.

What is the geometric mean of 42 and 12?

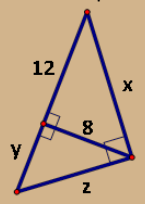
67 62

3.

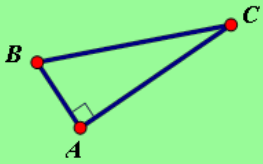
The value for x is:



4.
Find the missing values.
(If not a whole number, round to 2 decimal places)



5.
Which side is adjacent to ∠C but opposite ∠B?

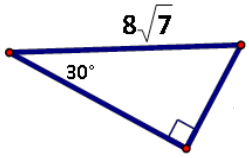


6.
If the long leg of a 30°,60°,90° triangle is $6\sqrt{3}$cm, then the area of the triangle is what?

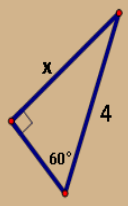
7.
If m is the geometric mean of a and b, then $\frac{m}{a} = \frac{a}{b}$

True or False

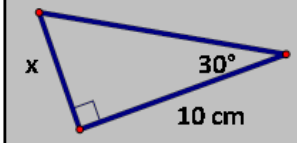
8. Find the area of the triangle.



9. The value for x is:

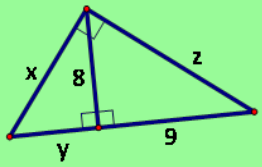


10. The value of x is approximately:

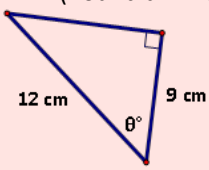


Degrees	Sine (sin)	Cosine (cos)	Tangent (tan)
30	0.5000	0.8660	0.5774
40	0.6428	0.7660	0.8391
50	0.7660	0.6428	1.1918

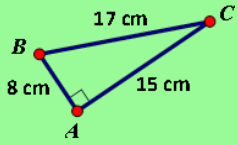
11. Find the missing values.
(If not a whole number, round to 2 decimal places)



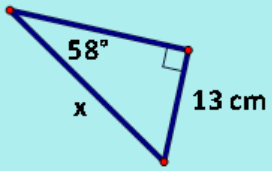
12. Solve for the missing information.
(Round all final answers to 2 decimals places)



13.
If ∠C is the reference angle,
then the tangent ratio would be:

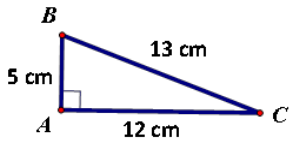


14. Solve for the missing information.
(Round all final answers to 2 decimals places)



15
Given the ratio $\frac{12}{13}$, which of the following is NOT equal to this value?

A) sin ∠B B) cos ∠C C) $\frac{AC}{BC}$
D) sin ∠C



16.
The Sine ratio of 64° is equal to the Cosine ratio of 26°.

T or F

17.

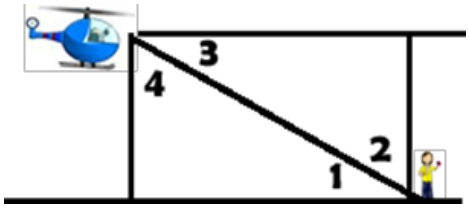
$\sin 34\frac{2}{5}° = \cos$ _____°

18.

$\sin(x + 18°) = \cos(45°)$

19. The angle of depression from the helicopter to the girl is:

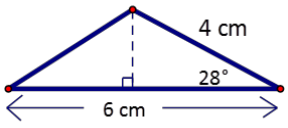
A) ∠1 B) ∠2 C) ∠3 D) ∠4



20.
A telephone pole casts a shadow 8 ft long when the sun's rays strike the ground at an angle of 50°. How tall is the pole?

21.
A boy is flying a kite on a string 75 ft long.
Determine the height of the kite in feet,
if the string is at an angle of 42° to the ground. (2 decimal places)

22.
Determine the heights of the given triangles.



23.
Determine the missing angle that makes the equation true.

sin 34° = sin _____

24.

Diagram ΔABC and then calculate the area

m∠A = 95°

b = 15 cm

c = 18 cm

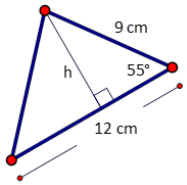
25.

TRUE/FALSE

In a triangle, there will always be three heights.

26.

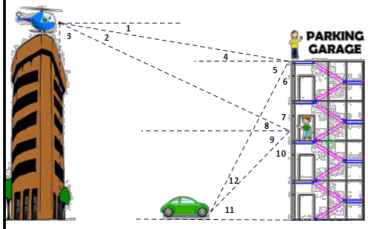
What is the area of the triangle?



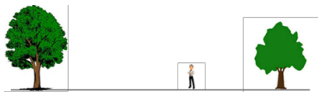
27 True or False

The angle of depression from the helicopter to the boy on the third floor of the parking garage is ∠1 & ∠2.

The angle of elevation from the boy on the third floor of the parking garage to the helicopter is ∠7.



28.
A man stands between two trees and he is 70 ft from the tall tree and 50 ft from the shorter tree. If he sees the taller tree at an angle of 38° and the smaller at 45° , what is the difference in the heights of the two trees (to the nearest foot) ?



Answers

1. 20
2. $6\sqrt{14}$ and $-6\sqrt{14}$
3. $12\sqrt{3}$
4. x= 14.42 , y=5.33 , z= 9.61
5. AC

6. $18\sqrt{3}$
7. F
8. $56\sqrt{3}$
9. $2\sqrt{3}$
10. 5.774

11. x= 10.70, y= 7.11, z= 12.04
12. 41.41
13. 8/15
14. 15.33
15. D
16. T
17. 55 3/5

18. 27
19. C
20. 9.53
21. 50.18
22. 1.88
23. 146

24. 134.49
25. True
26. 44.23
27. T, F
28. 5 ft