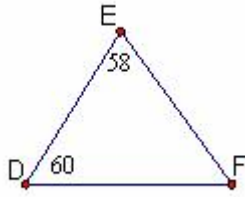


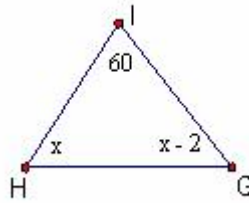
Midterm Review: Part I; Chapters 8-9

For #1-2, name the longest and shortest sides of the triangle.

1.

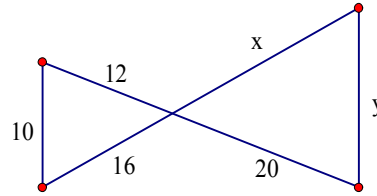
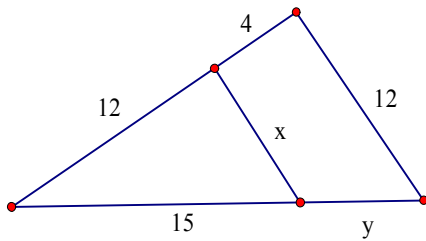


2.



For #3-4, the triangles are similar. Solve for x and y .

3.



5. The length of the shorter leg of a 30-60-90 triangle is $4\sqrt{2}$. Find the lengths of the longer leg and the hypotenuse.

6. The length of the hypotenuse of a 45-45-90 triangle is 12. Find the lengths of the legs.

7. The length of the longer leg of a 30-60-90 triangle is 6. Find the length of the shorter leg and the length of the hypotenuse.

8. The hypotenuse of a right triangle has length 12. If one leg of the triangle has a length of 4, find the length of the other leg.

9. Find the geometric mean of 4 and 9.

10. Classify the triangle with the given side lengths as obtuse, acute, right, or not possible:

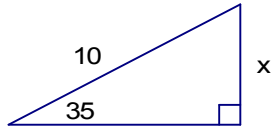
a. 4, 5, 6

b. 13, 1, 17

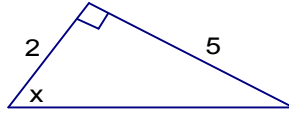
c. 15, 7, 8

Solve for x ; round to the nearest tenth:

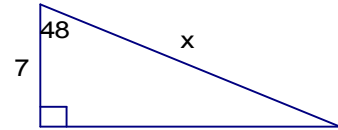
(11)



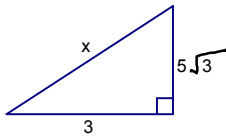
(12)



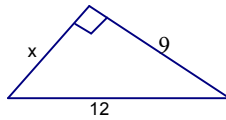
(13)



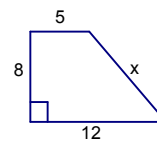
14.



15.

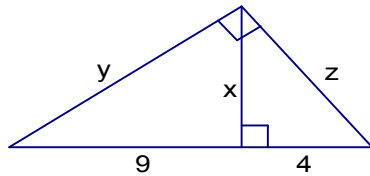


16.

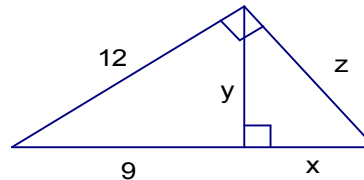


Solve for x , y , and z .

(17)



(18)

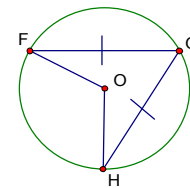


19. If the sun's angle of elevation is 52° and a flag pole casts a shadow that is 40 feet long, how tall is the flag pole?

20. From a lighthouse that is 350m above the shore, the angle of depression to a ship is 23° . How far is the ship from the shore?

21. If $m\widehat{FG} = 100^\circ$, find $m\widehat{FH}$

23. If $m\widehat{GH} = 80^\circ$, find $m\angle FGH$



22. If $m\angle FGH = 40^\circ$, find $m\angle FOH$

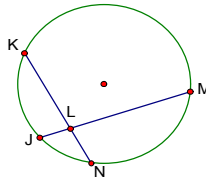
For #21-23.

Midterm Review: Part I; Chapters 8-9

24. If $m\widehat{KJ} = 80^\circ$ and $m\angle KLJ = 65$, find $m\widehat{MN}$

25. If $m\widehat{KM} = 170^\circ$ and $m\widehat{JN} = 20$, find $m\angle KLM$

26. If $JL = 2$, $LM = 8$, $KL = 6$, find LN .

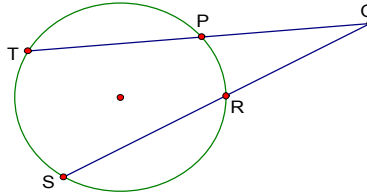


For #24-26.

For 27-28, refer to the diagram to the right:

27. If $QP = 4$, $TP = 5$, and $SR = 9$, find QR .

28. If $m\widehat{TS} = 90^\circ$ and $m\widehat{PR} = 20$, find $m\angle Q$



Make sure to review the Chapter 8 and 9 Study Guides that I issued out throughout the school year.