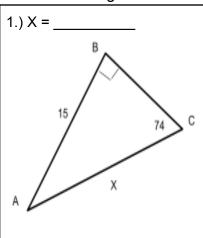
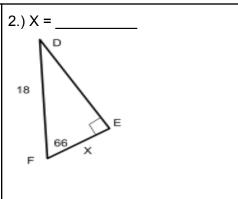
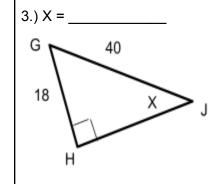
Short Answer:

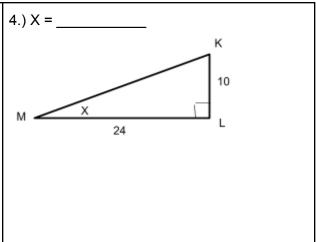
Find the missing side to the nearest tenth of a decimal.





Find the missing angle to the nearest whole number.



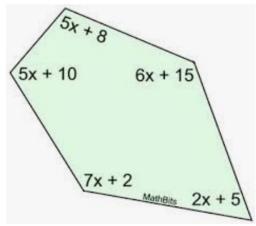


For #5 and 6, draw and label the picture. Determine the trig function. Solve and answer the question. Round answers to the nearest tenth.

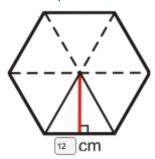
5.) Draw a tree with the sun shining behind it. You line yourself up with the sun's rays so your shadow along the ground, matches the end of the tree's shadow. You are 6 feet tall. Your shadow is 18 feet. The tree has a 70 foot shadow. How tall is the tree?

6.) A person is in a boat when they spot a lighthouse. The skipper's angle of elevation is 35 degrees. He knows the lighthouse is 150 feet tall. How far horizontally is he away from the lighthouse. Draw a labeled picture.

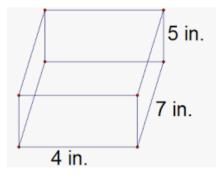
- 7.) Find the sum of the interior angles of a regular dodecagon. Sum = _____
- 8.) Solve for x. X = _____



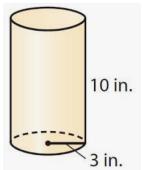
Use the picture below to answer Questions #9-11:



- 9.) Find the apothem. a = _____
- 10.) Find the perimeter. P = _____
- 11.) Use the formula $A = \frac{1}{2}aP$ to find the Area. A = _____
- 12.) Find the Surface Area of this figure. S.A. = _____



13.) Find the Volume of this figure. Vol = _____



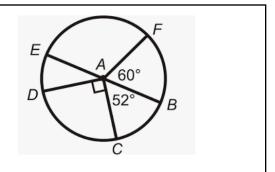
14.) Find the measures of the following arcs.

m arcFB = _____

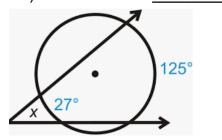
m arcBD = _____

m arcCEF = _____

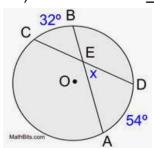
m<EAD = _____



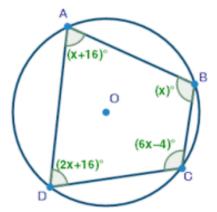
15.) Solve for x. X = _____



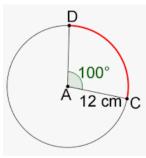
16.) Solve for x. X = _____



17.) Solve for x. X = _____



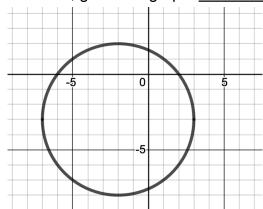
18.) Find the length of the arc. Arc Length= $\left(\frac{\theta}{360}\right) 2\pi r$



19.) Write the equation of the circle, given the following properties:

Center: (6, -9), Radius = 8 Equations of Circles: $(x - h)^2 + (y - k)^2 = r^2$

20.) Write the equation of the circle, given the graph.



21.) Graph the circle: $(x - 4)^{-2} + (y + 2)^{-2} = 4$

