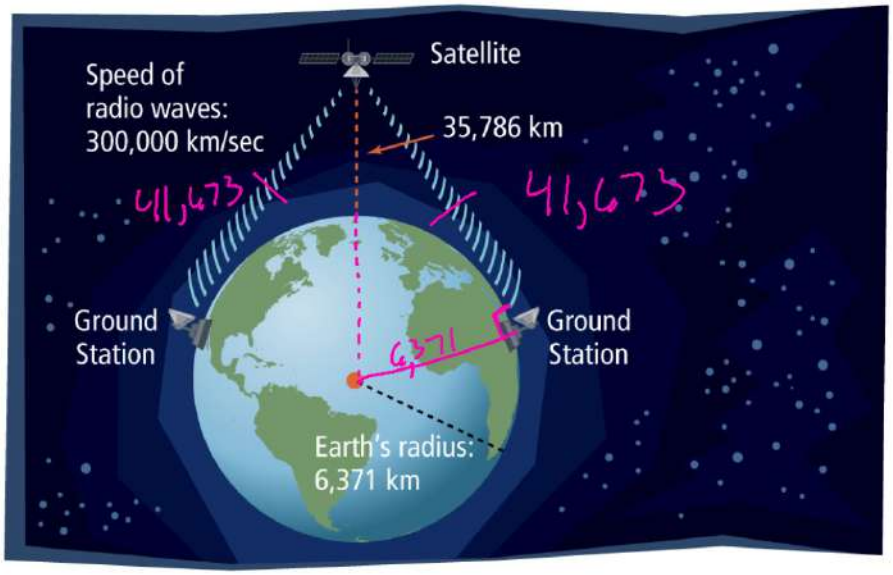
A satellite requires a line of sight for communication. Between the ground stations farthest from the satellite, what is the amount of time needed for a signal to go from one station up to the satellite, and then down to the other station?

$35,786 + 6371 = 42,157$



$6371^2 + b^2 = 42,157^2$

$b = 41,673$ km

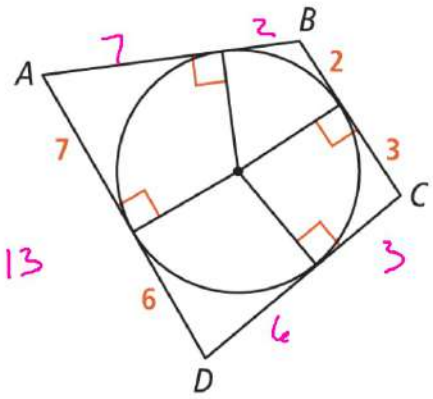
$$\frac{83,346 \text{ km}}{300,000}$$

.278 sec

4. What is the perimeter of *ABCD*?

Enter your answer.

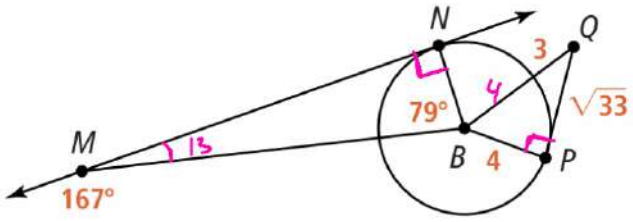
CHECK ANSWER



5. Is $\overleftrightarrow{MN}$ tangent to $\odot B$?

Enter your answer

No



$7^2 - 4^2 = (\sqrt{33})^2$

$4^2 + (\sqrt{33})^2 \stackrel{?}{=} 7^2$

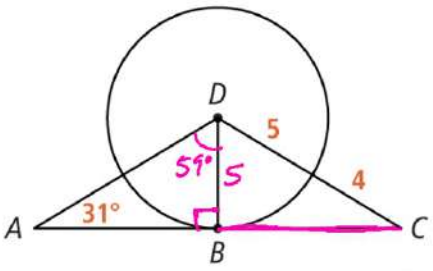
$16 + 33 = 49$

$49 = 49$

. Is $\overline{QP}$ tangent to $\odot B$? Yes

7. Segment AC is tangent to $\odot D$ at B. Find $m\angle ADB$.

Enter your answer.



$5^2 + BC^2 = 9^2$

$25 + BC^2 = 81$

$BC^2 = 56$

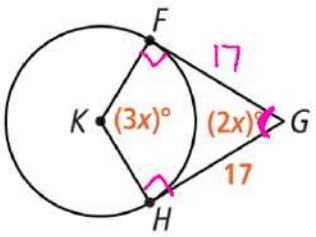
$BC = \sqrt{56}$

$= 3\sqrt{6}$

Segment AC is tangent to $\odot D$ at B. Find BC.

9. Segment FG is tangent to $\odot K$ at F and $\overline{HG}$ is tangent to $\odot K$ at H. Find FG.

Enter your answer.



$90+90+3x+2x=360$

$x=36$

$m\angle FGH=72°$

10. Segment FG is tangent to $\odot K$ at F and $\overline{HG}$ is tangent to $\odot K$ at H. Find $m\angle FGH$.