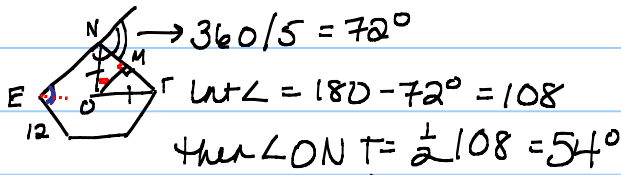


9.10 Q&A

p5 8. reg. pent $\Rightarrow n=5$

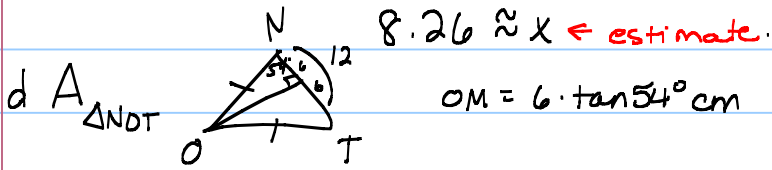


a. $m\angle E = 108^\circ$

b. $m\angle NOM = (90 - 54) = 36^\circ$

c. $\tan 54^\circ = \frac{x}{6}$, $6 \cdot \tan 54^\circ = x$ *exact length*
 $6(1.3764) = x$

$$\begin{array}{r} 2 \quad 43 \\ 1.3764 \\ \hline 6 \\ \hline 8.2584 \end{array}$$



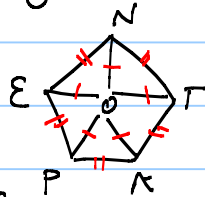
$A_{\Delta NOT} = \frac{1}{2} \text{ base} \cdot \text{height} \Rightarrow \frac{1}{2} \cdot 12 \cdot 6 \cdot \tan 54^\circ$

$$\begin{array}{r} 2 \quad 11 \\ 36 \tan 54^\circ \leftarrow \text{exact area} \quad 36 \\ \hline 36(1.3764) \quad 8.2584 \\ \hline 41.2920 \end{array}$$

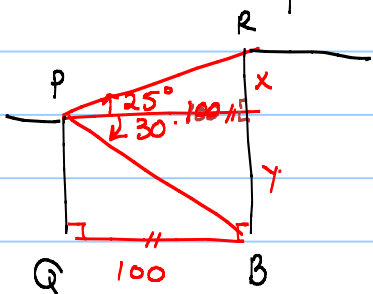
$A_{\Delta NOT} \approx 49.55 \text{ cm}^2$ *estimate*

$$\begin{array}{r} 41.2920 \\ \hline 49.5504 \end{array}$$

e. The pentagon's area may be found by finding the area of 1 Δ (eg ΔNOT) & multiplying it by 5, since the pentagon is made of 5 $\cong \Delta$.



15



$\tan 25 = \frac{x}{100} \therefore 100 \tan 25 = x$

$100(0.4663) = x$
 $46.63 = x$

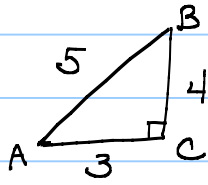
$\tan 30 = \frac{y}{100}$

$100(0.5774) = y$
 $57.74 = y$

then $x+y$

$\begin{array}{r} 46.63 \\ 57.74 \\ \hline 104.37 \text{ dm} \end{array}$

9. Find $m\angle$ s in $(3, 4, 5)$



$$\sin A = \frac{3}{5}$$

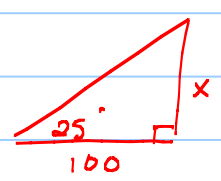
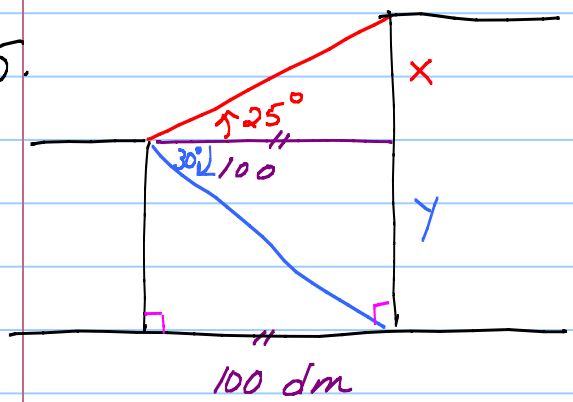
$$A = \sin^{-1}(.6)$$

$$\angle A \approx 37^\circ$$

$$\text{Then } 90 - 37 \Rightarrow m\angle B \approx 53^\circ$$

$$m\angle C = 90^\circ$$

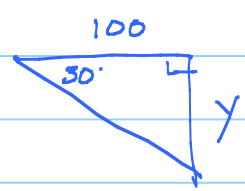
15.



$$\tan 25^\circ = \frac{x}{100}$$

$$100 (.4663) = x$$

$$46.63 = x$$



$$\tan 30^\circ = \frac{y}{100}$$

$$100 (.5774) = y$$

$$57.74 = y$$

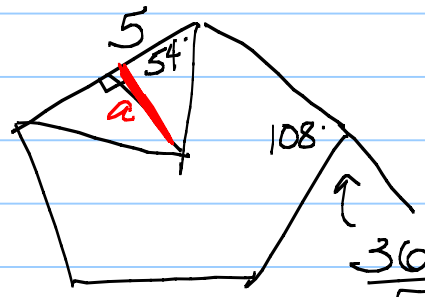
Then the height of the bldg

$$x + y = 46.63$$

$$57.74$$

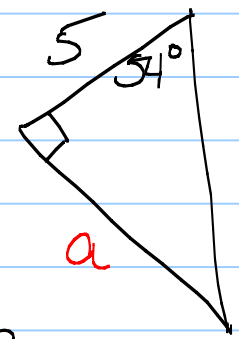
$$104.37 \text{ dm}$$

14.



$$P = 50 \Rightarrow S = 10$$

$$\frac{360}{5} = 72$$



$$\tan 54^\circ = \frac{a}{5}$$

$$5 (1.3764) = a$$

6.88 cm

$$\begin{array}{r} 1 \ 3 \ 3 \ 2 \\ 1.3764 \\ \hline 5 \\ \hline 6.8820 \end{array}$$