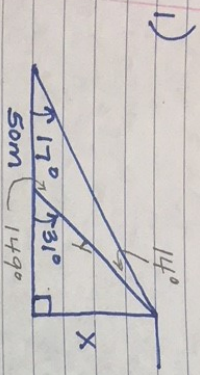


Law of Sines + Law of Cosines WS
Solutions

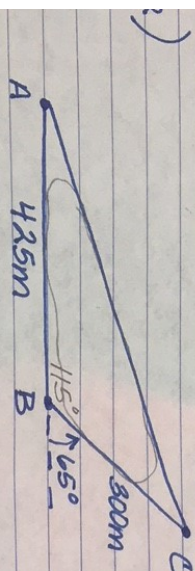


$$\frac{y}{\sin 17^\circ} = \frac{50}{\sin 14^\circ}$$

$$y \approx 60.4227 \text{ m}$$

$$\sin 31^\circ = \frac{x}{60.4227}$$

$$x \approx 31.122 \text{ m}$$

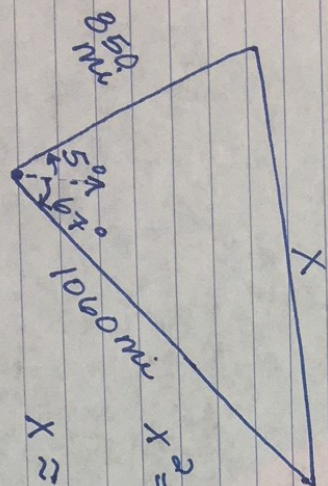


$$A \approx \frac{1}{2} (300)(485) \sin 115^\circ$$

$$\approx 57777.121 \text{ m}^2$$

test? are more detailed

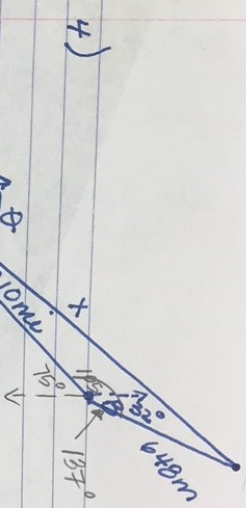
the 65° could be read differently
** not a great problem to draw*



$$x^2 = 850^2 + 1060^2 - 2(850)(1060) \cos 72^\circ$$

$$x \approx 1135.452 \text{ mi}$$

15. Double



$$x^2 = 810^2 + 648^2 - 2(810)(648) \cos 137^\circ$$

$$x \approx 1357.848 \text{ mi (A)}$$

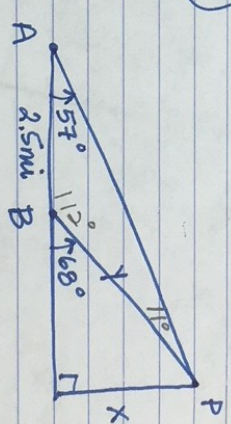
$$\frac{1357.848}{\sin 137^\circ} = \frac{648}{\sin y}$$

$$y \approx 18.993^\circ (B)$$

$$\theta = 75 - y \approx 56.006^\circ$$

bearing from A to C

5)



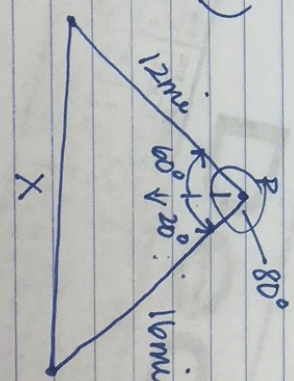
$$\frac{2.5}{\sin 11^\circ} = \frac{x}{\sin 57^\circ}$$

$$x \approx 10.988 \text{ mi (A)}$$

$$\sin 68^\circ = \frac{x}{10.988}$$

$$x \approx 10.188 \text{ mi}$$

6)



$$x^2 = 16^2 + 12^2 - 2(16)(12) \cos 60^\circ$$

$$x \approx 18.257 \text{ mi}$$

9th 1d