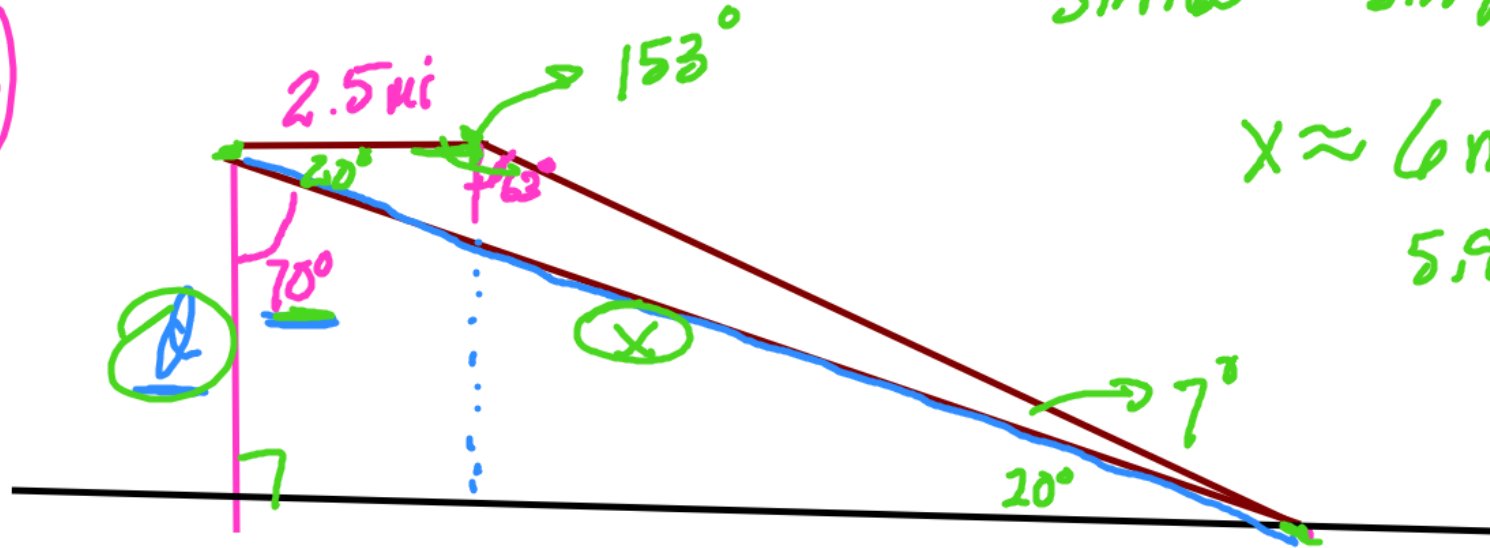


LAW OF COSINES

4b)

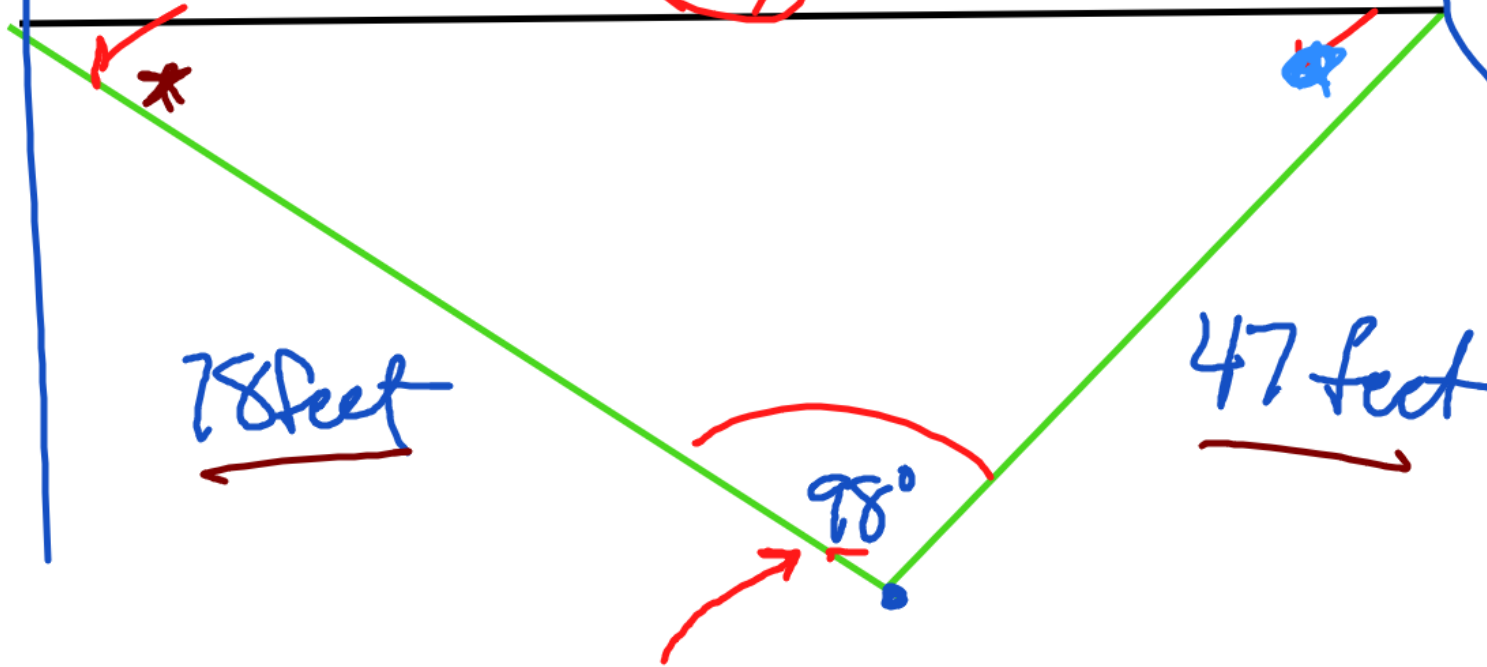


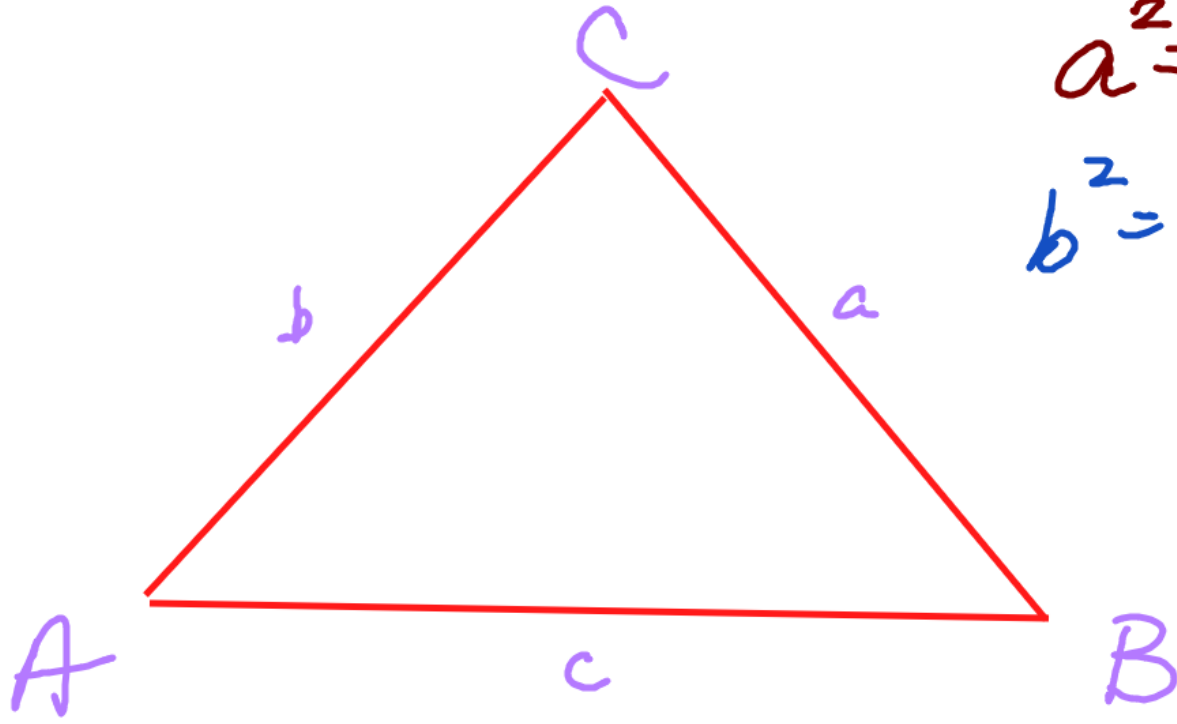
$$\frac{X}{\sin 163} = \frac{2.5}{\sin 7^\circ}$$

$$X \approx 6 \text{ miles} \\ 5.9976$$

$$c^2 = a^2 + b^2 - 2ab \cos C$$

(x)



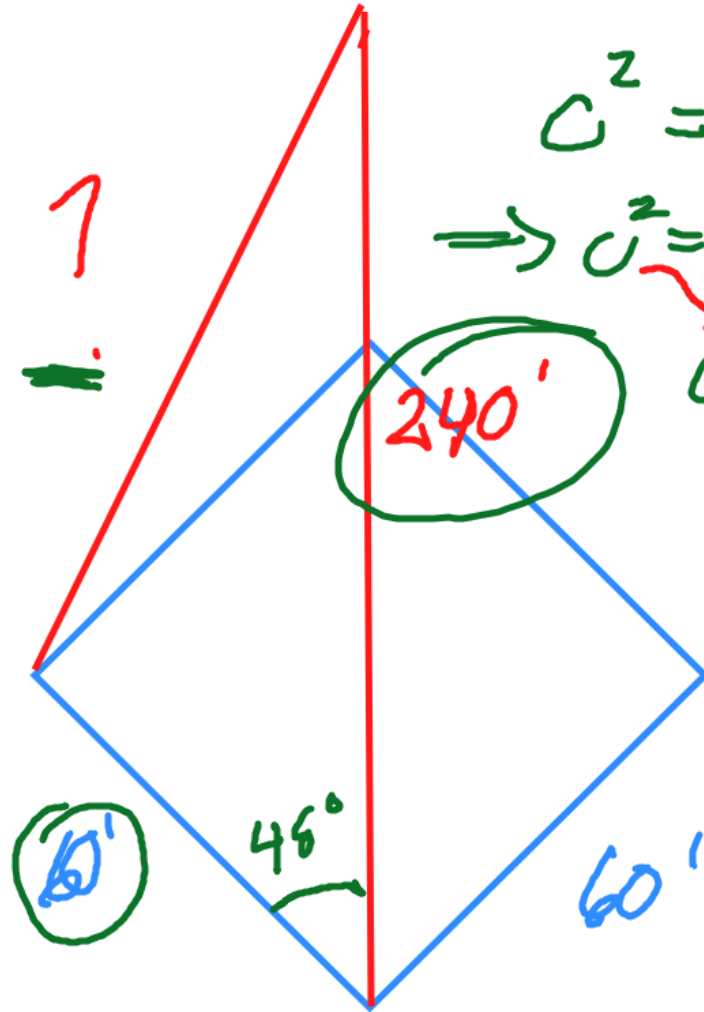


$$a^2 = b^2 + c^2 - 2bc \cos A$$
$$b^2 = a^2 + c^2 - 2ac \cos B$$

Law of Cosines

$$\underline{c^2 = a^2 + b^2 - 2ab \cos C}$$

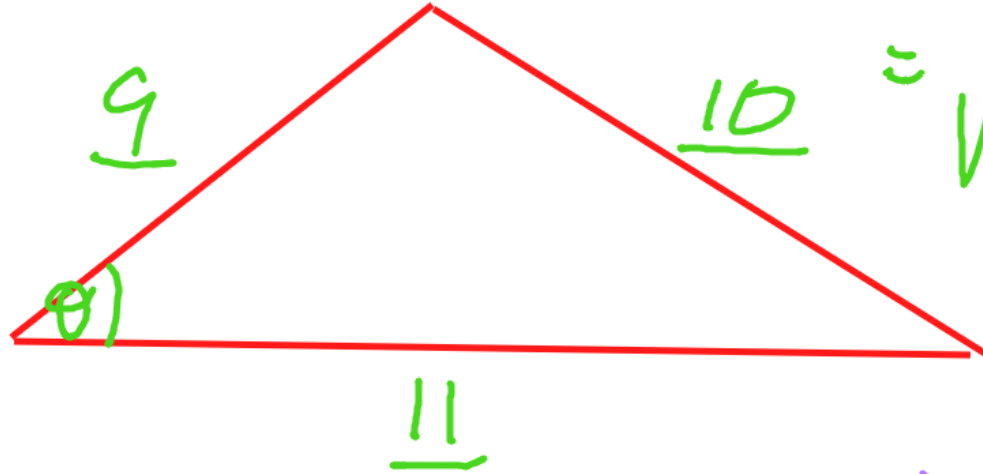
Softball



$$C^2 = \underline{60}^2 + \underline{240}^2 - 2(\underline{60})(\underline{240})\cos 45$$
$$\Rightarrow C^2 = 40835.3$$
$$C = 202. \text{ ft}$$

Heron's Formula

$$A = \sqrt{s(s-a)(s-b)(s-c)}$$



$$= \sqrt{15(6)(5)(4)}$$

$$= \sqrt{60 \cdot 30}$$

$$= \sqrt{1800} \approx \boxed{42.43}$$

$$s = \text{Semiperimeter} = \frac{1}{2}(a+b+c)$$
$$= \frac{1}{2}(9+10+11) = 15$$

6.2A

P413 8-24(x4), 37-49 odd, 53*, 54*