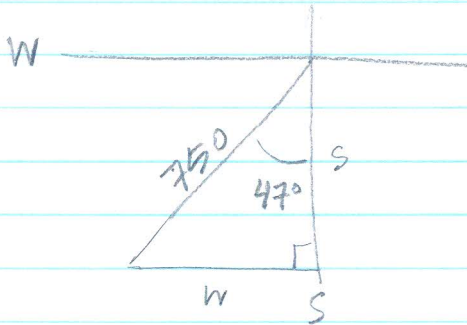


Right Triangle WS 1 - Day 3 - #16-20

16)



$$\sin 47^\circ = \frac{w}{750}$$

$$\cos 47^\circ = \frac{s}{750}$$

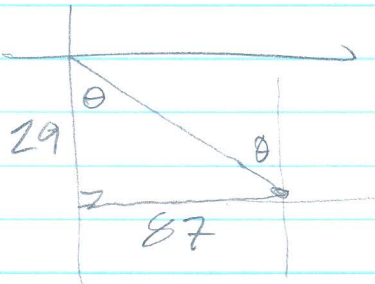
$$w = 750 \cdot \sin 47^\circ$$

$$w = \underline{548.5 \text{ miles}}$$

$$s = 750 \cos 47^\circ$$

$$s = \underline{511.5 \text{ mi}}$$

17)

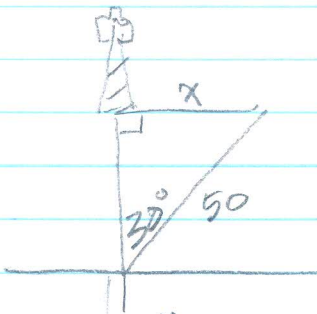


$$\tan \theta = \frac{87}{29}$$

$$\theta = \tan^{-1} \left(\frac{87}{29} \right) = 71.6^\circ$$

N 71.6° W

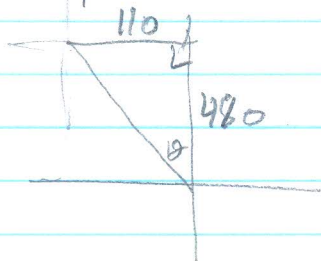
18)



$$\sin 30^\circ = \frac{x}{50}$$

$$x = 50 \sin 30^\circ = 25 \text{ miles}$$

19)

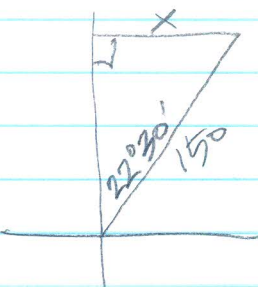


$$\tan \theta = \frac{110}{480}$$

$$\theta = \tan^{-1} \left(\frac{110}{480} \right) = 12.9^\circ$$

S 12.9° E

20)



$$\sin 22^\circ 30' = \frac{x}{150}$$

$$x = 150 \sin 22^\circ 30' = \underline{57.4 \text{ miles}}$$