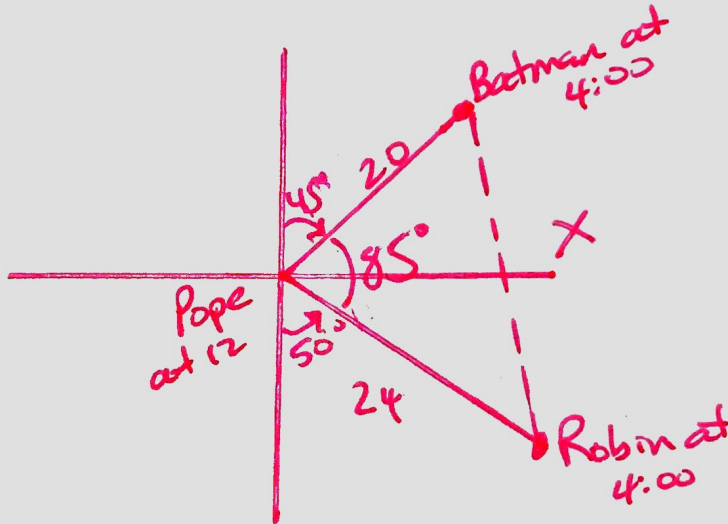


### Warm-up: Applications 3

Batman and Robin leave Pope HS at noon. Batman travels at a bearing of  $N45^\circ E$  at 5mph and Robin travels at a bearing of  $S50^\circ E$  at 6mph. How far apart are Batman and Robin at 4pm that day?

Round to the nearest tenth.



$$x^2 = 20^2 + 24^2 - 2(20)(24)\cos 85^\circ$$

$$x^2 = 892.3304$$

$$x = 30 \text{ miles}$$