

Finish in-class assignment... (25 minutes more)

When finished...work on these questions from  
the Trig Booklet:

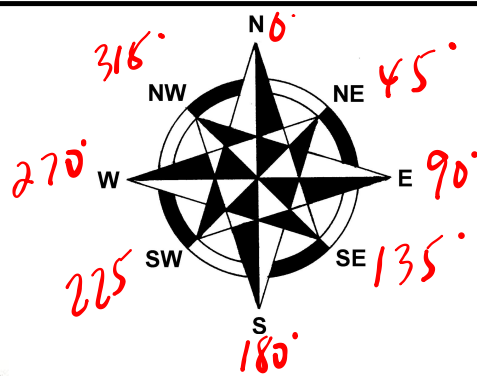
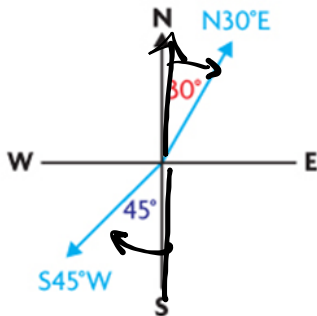
**Practice & Problems #7, 8, 9**

# MORE APPLICATIONS... Bearings

## NOTE:

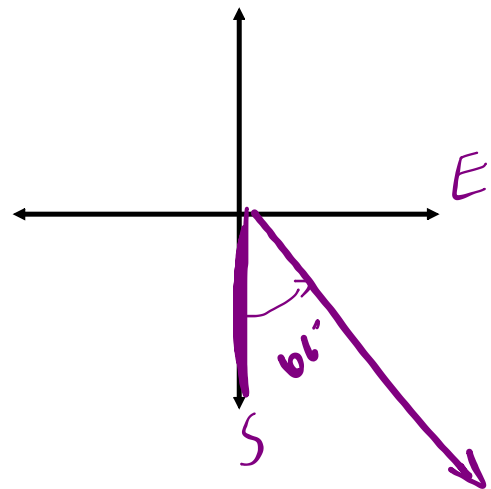
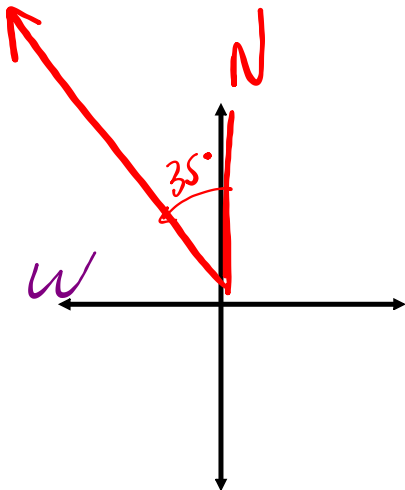
### Communication Tip

Directions are often stated in terms of north and south on a compass. For example,  $N30^\circ E$  means travelling in a direction  $30^\circ$  east of north.  $S45^\circ W$  means travelling in a direction  $45^\circ$  west of south.



Bearings... Taken off North and South

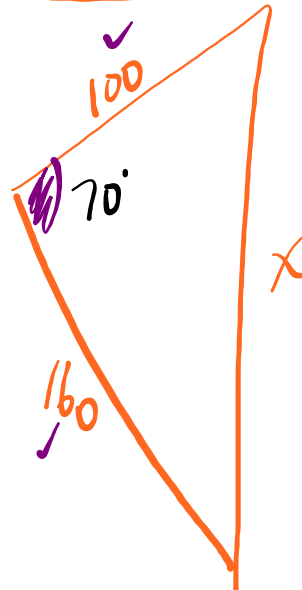
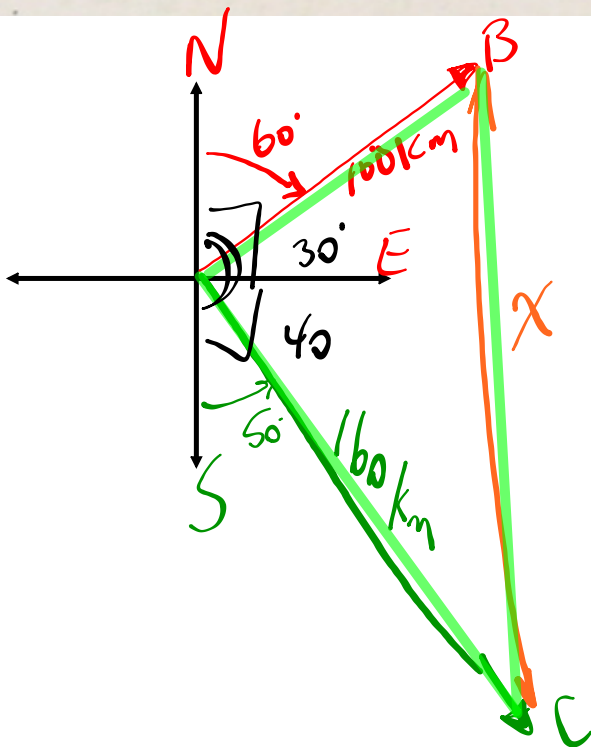
1)  $N35^\circ W \leftarrow 35^\circ \text{ West of North}$     2)  $S61^\circ E \leftarrow 61^\circ \text{ East of South}$



10.12

8 In an airport control tower A, 2 planes at B and C are located at the same altitude on a radar screen. The range finder determines one plane to bear  $N60^\circ E$  at 100 km while the other bears  $S50^\circ E$  at 160 km. How far apart are the planes from each other?

\* Draw 2 pictures



$$X^2 = 100^2 + 160^2 - 2(100)(160)\cos 70^\circ$$

$$X^2 = 100^2 + 160^2 - 2 \cdot 100 \cdot 160 \cdot \cos(70^\circ)$$

$$X^2 = 24655.35541$$

$$X = \sqrt{\text{Ans}} = 157.0202389$$

10.12 # <sup>Homework</sup> // -12 (Bearings)  
Practice: Problems # 7, 8, 9