

## Challenge Problem #14

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Challenge problems are worth 30 points each. 6 points will be earned for the correct answer. This includes using **appropriate units**. 12 points will be earned by **showing the mathematical process** used in getting the answer. **A diagram is required for this problem.** The last 12 points will be earned by **writing a complete explanation** of the reasoning used to solve the problem. Good luck.

An ocean liner left a port at 10:00 AM and traveled due south at 16 mph. One hour later, a freighter left the same port and traveled due east at 10 mph. If the ships maintain their speed and direction, then how far apart are the ships at 1:00 PM?