Name _____

Pretest

In the picture below, two airplanes are flying on different routes.

The World Airlines plane has flight number **WAL**27.
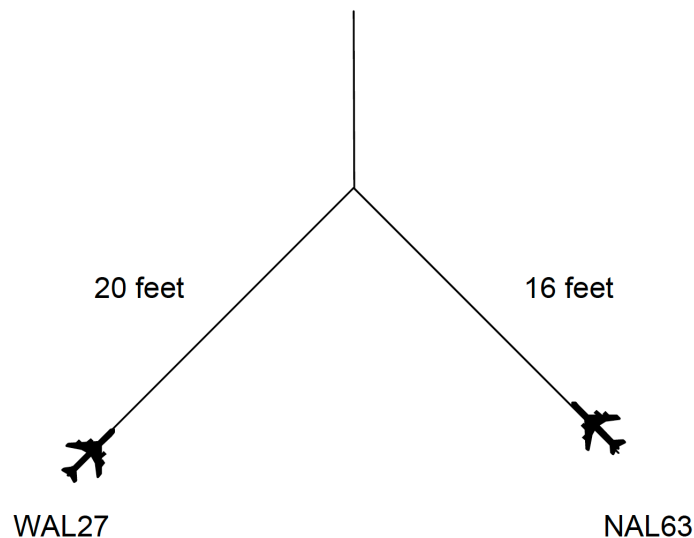The speed of Flight WAL27 is ½ foot/second.

The National Airlines plane has flight number **NAL**63.
The speed of Flight NAL63 is ⅓ foot/second.

Flight WAL27 is 20 feet away from the point where the two routes intersect (meet).
Flight NAL63 is 16 feet away from the point where the two routes intersect.

1. Do you think the two planes will meet at the point
   where the two routes intersect?   _____

   Why or why not?   _____

   _____

2. If not, how many feet apart do you think the planes will be when the first plane reaches the point
   where the routes intersect?

   _____

   20 feet   16 feet

   WAL27   NAL63

Name _____

Posttest

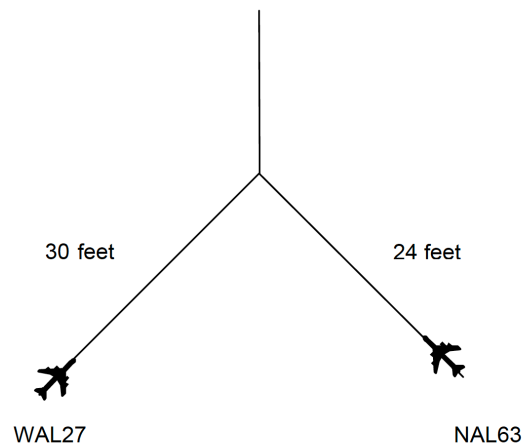In the picture below, two airplanes are flying on different routes.

The speed of Flight WAL27 is 1 foot/second.

Flight WAL27 is 30 feet from the point where the two routes intersect.

The speed of Flight NAL63 is ⅔ foot/second.

Flight NAL63 is 24 feet from the point where the two routes intersect.

The separation standard is 5 feet.

30 feet	24 feet
WAL27	NAL63

1. Do you think the two planes will meet at the point
   where the two routes intersect?   _____

   Why or why not?   _____

   _____

2. If not, how many feet apart do you think the planes will be when the first plane reaches the point
   where the routes intersect?

   _____

Name _____

3. Does your answer to Question 2 meet the
   5-foot separation standard?   _____

4. If you think two planes will not meet the 5-foot separation standard, what could you tell the air
   traffic controllers to do to make sure that the separation standard will be met?

   _____

   _____

   Now consider this general problem.

   Two planes are traveling at different speeds on two different routes.
   The planes are different distances from the point where the two routes intersect.

5. Do you have enough information to predict the separation distance between the planes at the
   point where the routes come together?

   _____

   If NO, what other information do you need?

   _____

   _____

Name

Lines and Grid

Distance traveled

Distance traveled

Time traveled