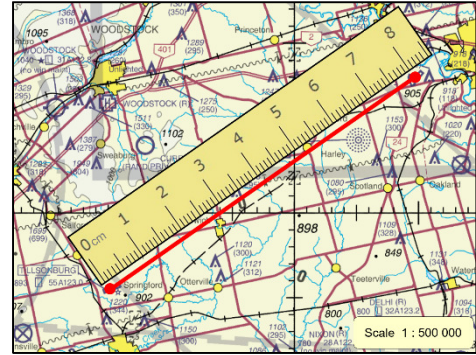




- 1) The aviation map uses a scale of 1 : 500 000. Using a ruler, Angelika measured the distance from the Brantford airport to the Tillsonburg airport to be 8 cm on the map. Determine the actual distance between the airport in kilometres.



- 2) The group notices that their initial altitude is 815 feet above sea level and the aircraft climbs at a rate of 900 feet per minute.

- a) Create an algebraic equation to model the aircraft's altitude while it is climbing.

Equation: \_\_\_\_\_

- b) Use your equation to determine how high the plane would be if it had climbed for 10 minutes.

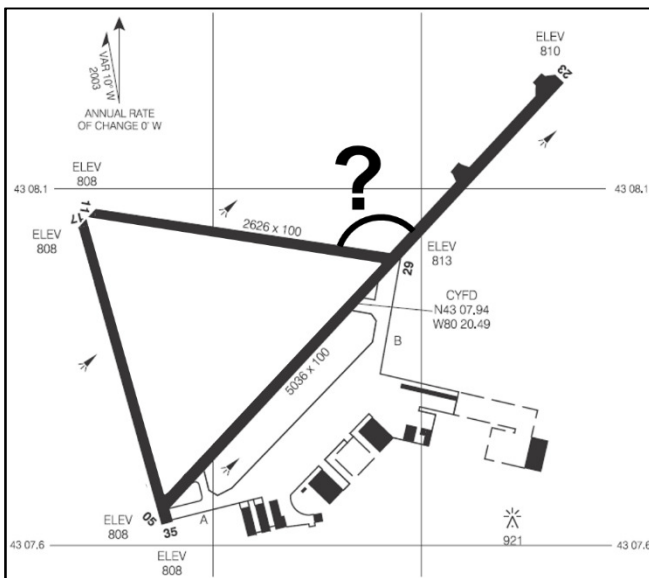


- c) Use your equation to determine how long the aircraft must climb in order to reach the desired altitude of 3000 feet (above sea level).



- 3) The aircraft cruises at a speed of 200 km/h. Determine how many minutes it will take the group to cruise 40 km from Brantford to Tillsonburg.

- 4) The three runways at the Brantford airport form an equilateral triangle. What angle does the extended runway make with the triangle?



- 5) The group ended up using the plane for 1.3 hours. The flying club charges a rental rate of \$150 per hour, but is currently offering a 5% discount on all rentals. Determine the total cost of the rental, including 13% tax.

