

# The Airplane Riddle

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CAN YOU SOLVE THE AIRPLANE RIDDLE?

TEDEd

HOW SHOULD THE THREE PLANES COORDINATE SO THE PROFESSOR CAN FLY CONTINUOUSLY FOR THE WHOLE TRIP, WITHOUT ANYONE RUNNING OUT OF FUEL AND CRASHING?

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1. The professor's plane must make a single continuous trip around the world without landing or turning around.
2. Each plane can travel exactly 1 degree of longitude in 1 minute for every kiloliter of fuel. Each can hold a maximum of 180 kiloliters of fuel.
3. Any plane can refuel any of the others in mid-air by meeting at the same point and instantly transferring any amount of fuel.
4. Fugori and Orokana's planes can turn around instantaneously without burning fuel.
5. Only one airport is available for any of the planes to land, take off, or refuel.
6. All three planes must survive the experiment, and none may run out of fuel in mid-air.

## Vocabulary

un huitième: .....  
un voyage: .....  
atterrir: .....  
décoller: .....  
atteindre: .....  
être plein de:.....  
contenir: .....  
se ravitailler (en carburant): .....  
une jauge: .....  
invariablement: .....  
à condition que: .....  
être à court de, venir à manquer de: .....  
de justesse, de peu, à un cheveu près: .....  
réussir, y arriver: .....

## Stress Placement

coordinate  
calculate  
calculations  
permission  
located  
continuously  
professor  
identical  
experiment

Hypotheses :