
Desert crossing

You are planning to cross a desert 2413 km wide in a special desert vehicle.

- The vehicle can travel 12 km on 1 litre of fuel.
- It has a 60 litre tank and can carry at most four 20 litre cans.
- The only source of fuel and cans is at the base at the start of the desert. Fuel and cans at the base are not limited.

Task

Write a report giving your answers to the following:

1. Using the vehicle without refuelling, how far into the desert can you *safely* go?
2. Describe a procedure whereby you could cross the desert in the vehicle.
3. Describe a procedure whereby you could cross the desert and return in the vehicle.
4. Describe a procedure whereby you could cross the desert in the vehicle using the minimum amount of fuel.
5. Describe a procedure whereby you could cross the desert and return in the vehicle using the minimum amount of fuel.

(3 point, Group)