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COSC326 Etude 4 – Desert Crossing

1. You can safely travel 360km and make it back to the start.
(60 litres x 12km = 720, 720/2 = 360km)

2. In this procedure the driver crosses to the other side of the desert using 541.087 litres of fuel. During this procedure, all of the fuel that is dropped in the desert is used at some stage, so nothing is left over. When the driver reaches the end of the desert at exactly 2413km, he has no fuel left in his tank.

Trip 1:

- Load 20 litres of fuel into the tank, and put a 10 litre can on the back of the truck.
- Drive 120km forward, and drop off the 10 litre can.
- Drive back 120km, to the start.

Trip 2:

- Load 60 litres of fuel into the tank, and load four 20 litre cans (80L) on the back.
- Drive forward 360km, and drop off the 80L of fuel on the back of the truck.
- Drive back 360km, to the start.

Trip 3:

- Load 60 litres of fuel into the tank, and load three 20 litre cans (60L) onto the back.
- Drive forward 360 km, and refill the tank 30 litres.
- Drive forward another 360km, and drop off the 60L of fuel from the back of the truck.
- Drive back 360km, and refill the tank 30L.
- Drive back 360km, to the start.

Trip 4:

- Load 60 litres of fuel into the tank, and load three 20 litre cans (60L) onto the back.
- Drive forward 720km, and then top the tank up 20 litres.
- Drive forward another 120km. Drop off the 60 L from the back of the truck.
- Drive back 120km. Top up the tank with 30 litres of fuel.
- Drive back 360km, and top up the tank 20L.
- Drive back 240km, and refill the tank with 10 litres.
- Drive back 120km, to the start.

Trip 5:

- Load 60 litres of fuel into the tank, and put three 20 litre cans (60L) onto the back, along with a fourth can containing 11.083 litres.
- Drive forward 720km, and then put 10L into the tank.
- Drive forward 120km, and fill the tank right up with 60 litres.
- Drive forward another 720km, and take the three 20 litre cans off the back of the truck. Use these to completely refill your tank 60 litres.
- Drive forward another 720km, and take the 11.083L can off of the back. Put this in the tank.

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  - Drive forward another 133km, and you have made it to the end of the desert.

3. In this procedure the driver crosses to the other side of the desert using 5,660 litres of fuel. 208.9 litres of fuel is left in the desert after this senario and the vehicle arrives back with 8.93 litres still in the tank. After each line a new trip begins. At the end of each trip we both fill the vehicle and the cans with exception for the last trip.

T60 C80
F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(80)
B360 T30 Drive Backward to Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(80)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (1440 km) - Drop Cans +80(80)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(0)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

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F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(90)
F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (1440 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (1800 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (1440 km) Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(0)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(30)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(0)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(50)

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F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (1440 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(30)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(0)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (1440 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (1800 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (2160 km) - Drop Cans +80(80)

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Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (1800 km) Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (1440 km) Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(0)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(30)
F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(80)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(0)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (1440 km) - Drop Cans +80(120)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(0)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

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F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(70)
F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(100)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (1440 km) - Fill Vehicle -30(90)
F360 D80 Drive Forward - Reach Stop (1800 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (1440 km) Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(0)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(30)
F360 D80 Drive Forward - Reach Stop (1080 km) - Drop Cans +80(120)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(0)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(20)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(100)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(70)

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F360 D80 Drive Forward - Reach Stop (720 km) - Drop Cans +80(80)
Can't go any further, so will drop all cans
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(40)
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 D80 Drive Forward - Reach Stop (360 km) - Drop Cans +80(120)
Can't go any further, so will drop all cans
B360 T60 C80 Drive Backward to START - Fill Cans and Vehicle

F360 T30 Drive Forward - Reach Stop (360 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (720 km) - Fill Vehicle -30(50)
F360 T30 Drive Forward - Reach Stop (1080 km) - Fill Vehicle -30(90)
F360 T30 Drive Forward - Reach Stop (1440 km) - Fill Vehicle -30(30)
F360 T30 Drive Forward - Reach Stop (1800 km) - Fill Vehicle -30(70)
F360 T30 Drive Forward - Reach Stop (2160 km) - Fill Vehicle -30(50)
F253 Drive Forward - Reached End of the Desert
B360 T21.1 Drive Backward - Reach Stop (2160 km) Fill Vehicle -21.1(28.9)
B360 T30 Drive Backward - Reach Stop (1800 km) Fill Vehicle -30(40)
B360 T30 Drive Backward - Reach Stop (1440 km) Fill Vehicle -30(0)
B360 T30 Drive Backward - Reach Stop (1080 km) - Fill Vehicle -30(60)
B360 T30 Drive Backward - Reach Stop (720 km) - Fill Vehicle -30(20)
B360 T30 Drive Backward - Reach Stop (360 km) - Fill Vehicle -30(60)
B360 T60 C80 Drive Backward to START - Mission Complete

4. In this procedure the driver crosses the desert using far less fuel than in procedure 2, and one less trip. No fuel is left in the desert, and the driver arrives at the end with no fuel left in his tank. Four trips and 387.584 litres are used in this procedure.

Trip 1:

- Load 2.166 litres of fuel into the tank, and put one can containing 5.417 litres of fuel on the back.
- Drive forward 13km, and dump the 5.417L can.
- Drive back 13km, to the start.

Trip 2:

- Load 60 litres of fuel into the tank, and three 20 litre cans (60L) onto the back.
- Drive forward 13km, and top up the tank with 1.083 litres.
- Drive forward another 360km, and then drop off the 60L of fuel on the back.
- Drive back 360km, and top up the tank 1.083L.
- Drive back 13km, to the start.

Trip 3:

- Load 60 litres of fuel into the tank, and three 20 litre cans (60L) onto the back.

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- Drive forward 13km, and top the tank up 1.084 litres.
- Drive forward 360km, and top the tank up 30 litres.
- Drive forward a further 360km, and drop off the 60 litres of fuel.
- Drive back 360km, and top up the tank another 30 litres.
- Drive back another 360km, and top up the tank 1.083 litres.
- Drive back 13km, back to the start.

Trip 4:

- Load the tank with 60 litres of fuel, and put four 20 litre cans on the back (80L).
- Drive forward 13km, and refill the tank completely with 1.083L.
- Drive forward 720km, and completely refill the tank with 60L of fuel.
- Drive forward another 720km, and drop three of the 20L cans off of the back of the truck. Use this 60L to completely refill the tank.
- Drive forward 720km, and drop the last 20L can off of the back. Load this can into the tank.
- Drive forward 240km, and you have reached the end of the desert.

5. In this procedure the driver crosses the desert using less fuel than procedure 3. This is procedure is based off our previous attempt at procedure 5, except now we are mainly using 240km stops rather than 360km blocks, which has proven to be more efficient. 1824.34 litres of fuel is used to reach the end and return to the beginning. No fuel is left in the tank or the desert at the end.

Trip 1:

- Load the tank with 40 litres of fuel and two cans of 20 litres on the back.
- Drive forward 240km and drop the two 20 litre cans off the back.
- Drive back 240km, to the start.

Trip 2:

- Load the tank with 60 litres of fuel and put four cans of 80 litres on the back.
- Drive forward 240km, and top the tank up 20 litres.
- Drive forward another 240km, and drop the four cans off the back.
- Drive back 480km, to the start.

Trip 3:

- Load the tank with 40 litres of fuel and four cans of 20 litres on the back.
- Drive forward 240km and drop the four 20 litre cans off the back.
- Drive back 240km, to the start.

Trip 4:

- Load the tank with 60 litres, and put four cans of 20 litres on the back.
- Drive forward 240km, and drop three of the four cans off the back.
- Top up the tank with 20 litres, and drive forward another 240km.
- Drop the last can off the back, and then drive back 480km, to the start.

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Trip 5:

- Load the tank with 60 litres, and put four cans of 20 litres on the back.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward another 240km, and drop the four cans off the back.
- Drive back 480km, to the start.

Trip 6:

- Load the tank with 40 litres of fuel and four cans of 20 litres on the back.
- Drive forward 240km and drop the four 20 litre cans off the back.
- Drive back 240km, to the start.

Trip 7:

- Load the tank with 60 litres, and put four cans of 20 litres on the back.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward another 240km, and top up another 20 litres.
- Drive forward another 240km, and drop the four cans off the back.
- Drive back 480km, and top up the tank 20 litres.
- Drive back 240km, to the start.

Trip 8:

- Load the tank with 60 litres, and put four cans of 20 litres on the back.
- Drive forward 240km, and top your tank up 20 litres.
- Drive forward another 240km, and drop three of the cans off the back.
- Top up the tank another 20 litres, and drive forward 240km.
- Drop the last can off the back, and drive back 480km.
- Top up the tank another 20 litres, and drive back 240km, to the start.

Trip 9:

- Load the tank with 40 litres of fuel and four cans of 20 litres on the back.
- Drive forward 240km and drop the four 20 litre cans off the back.
- Drive back 240km, to the start.

Trip 10:

- Load the tank with 60 litres, and put four cans of 20 litres on the back.
- Drive forward 240km and top up the tank 20 litres.
- Drive forward another 240km, and top up the tank another 20 litres.
- Drive forward 240km and drop three of the four cans off the back.
- Top up the tank 20 litres, and drive forward 240km.
- Drop the last can off the back, then drive back 480km.
- Top up the tank 20 litres, and drive back 240km.
- Top up the tank 20 litres, then drive 240km back to the start.

Trip 11:

- Load the tank with 60 litres of fuel, and load four cans of 20 litres on the back.
- Drive forward 240km, and top up the tank 20 litres.

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- Drive forward 240km and top up the tank another 20 litres.
- Drive forward another 240km, and top up the tank another 20 litres.
- Drive forward 240km drop the four cans off the back.
- Drive back 480km and top up the tank 20 litres.
- Drive back 240km, and top up the tank 20 litres.
- Drive back 240km to the start.

Trip 12:

- Load the tank with 60 litres of fuel, and load four cans of 20 litres on the back.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km and top up the tank another 20 litres.
- Drive forward another 240km, and top up the tank another 20 litres.
- Drive forward 240km, top up the tank 20 litres.
- Drive forward 240km, and drop the four cans off the back.
- Drive back 480km, and top the tank up 20 litres.
- Drive back 240km, and top the tank up 20 litres.
- Drive back 240km, and top up the tank 20 litres.
- Drive back 240km, to the start.

Trip 13:

- Load up the tank with 60 litres, and load 2 cans with 20 litres, one can with 14.335 litres, and one can with 10 litres on the back.
- Drive forward 240km and top up 20 litres.
- Drive forward 240km and top up 20 litres.
- Drive forward 240km and top up 20 litres.
- Drive forward 240km and top up 20 litres.
- Drive forward 240km and top up 20 litres.
- Drive forward 240km, and drop the two cans containing 20 litres off the back.
- Drive forward 133km, and drop the can containing 10 litres, and the can containing 14.335 litres off the back.
- Top the tank up 2.167 litres, and drive back 133km.
- Drive back 240km, and top up 20 litres.
- Drive back 240km, and top up 20 litres.
- Drive back 240km, and top up 20 litres.
- Drive back 240km, and top up 20 litres.
- Drive back 240km, and top up 20 litres.
- Drive back 240km, to the start.

Trip 14:

- Load the tank with 60 litres of fuel, and put four cans of 20 litres on the back.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km, and top up the tank 20 litres.
- Drive forward 240km, and top up the tank 20 litres.

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- Drive forward 133km, and top up the tank 11.083 litres.
- Drive forward 720km, and drop three of the four cans of fuel off the back.
- Top the tank right up with 60 litres, then drive forward 120km to the end of the desert.
- Drive back 120km, and drop the last can off the back of the truck.
- Top up the tank 20 litres, and drive back 720km.
- Top up the tank 11.083 litres, then drive back 133km.
- Top up the tank 20 litres, then drive back 240km.
- Top up the tank 20 litres, then drive back 240km.
- Top up the tank 20 litres, then drive back 240km.
- Top up the tank 20 litres, then drive back 240km.
- Top up the tank 20 litres, then drive back 240km.
- Top up the tank 20 litres, then drive back 240km, back to the start.