

Exercise 8.1

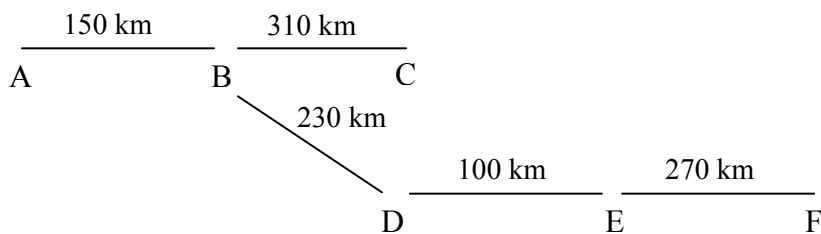
A) A train with an electric locomotive starts at station A towing two compositions. The train makes a commercial stop at station B where the composition separates, one goes to C (it continues with the electric locomotive without doing any more commercial stops), and to F (it continues with a diesel locomotive and at D and E does commercial stops). In station E a new wagon is added to the train and continues towards station F.

During July and August, between stations B and C, the train is reinforced with a second wagon.

The train carries out the coming and going route during the day.

Calculate:

- a. The section, journeys and train set the railway is made of.
- b. The production of km.train and km.vehicles (locomotive and wagons) by year of the railway line.
- c. The mean train formation.



B) Between stations B and F the number of passengers that get in and out of the train are:

STATION	KM	GET INTO TRAIN	GET OUT TRAIN	AT TRAIN LEAVING
B	0	200	30	290*
D	230	25	75	240
E	330	250	25	465
F	600		465	0

***NOTE:** The train leaves station B with more passengers than those that get into it.

The number of offered seats per wagon is of 300.

Calculate:

- a. Number of boarding passengers (V_e).
- b. Passengers.km (Pk).
- c. Seats.kilometre (Sk).
- d. Mean passenger trip (Tp).
- e. Train saturation (Ts). Explain its meaning.
- f. Passengers rotation (PR). Explain its meaning.