

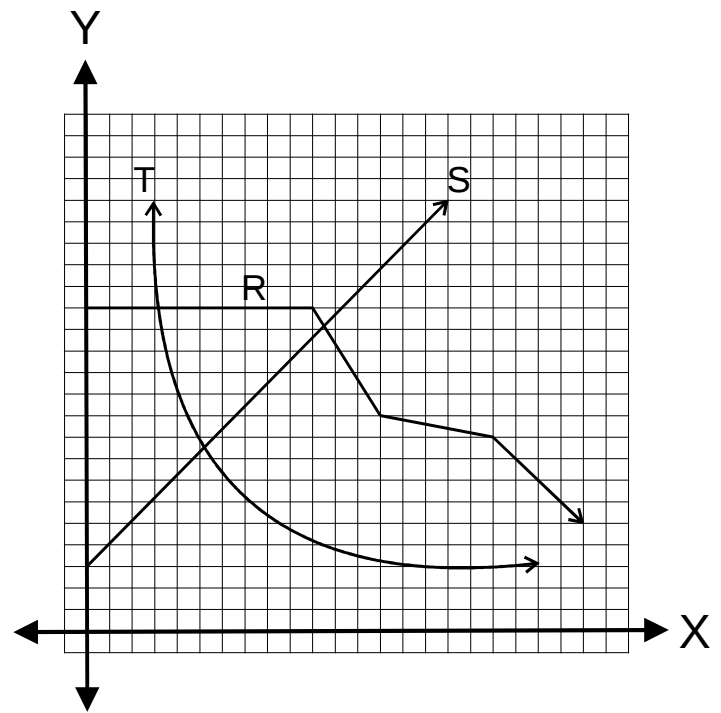
Exercise 2015-9EI-00002(4)

- (1) The price for litres of juice is R28. Calculate the price of 750 mℓ of the same juice.
- (2) Determine if each of the following is a direct or an inverse proportion:
- (a) the price for 5 kg washing powder is R112,50 and 3 kg washing powder cost R67,50.
 - (b) 4 men take 3 days to complete a certain piece of work and 3 men take 4 days to complete the same piece of work.
- (3) A contractor plans to use 8 trucks to remove rubble from a site. He calculates that it will take 48 hours to complete the job. He then decides to hire another 3 trucks to help with the job. How many hours will he then need to complete the same job at the same tempo?
- (4) Two drivers record the following during races:
- Driver A: Completed 18 km in 4,5 minutes
- Driver B: Completed 14 000 m in 200 seconds
- Which driver travelled at the fastest speed?
- (5) The time it takes pumps of the same type to fill certain tanks of the same size, is summarised in the following table:

Number of pumps:	12	8	6	4	
Time (hours)	4	6			16

- (a) Complete the table.
- (b) Does the information in the table represent direct or inverse proportion?
- (c) Represent the information in the table on a graph. Let the x -axis represent the number of pumps and the y -axis the time used. Join the points.
Use the attached graph paper.
- (d) How long will it take 32 pumps to fill the tank?
Show on the graph where you made the reading.
- (e) How many pumps will fill the tank within 24 hours?
Show on the graph where you made the reading.

(6) The diagram shows the graphs of R, S and T. Study the diagram and answer the following questions:



- Does R represent direct proportion, inverse proportion or no proportion at all?
- Does S represent direct proportion, inverse proportion or no proportion at all?
- Does T represent direct proportion, inverse proportion or no proportion at all?
- Write an equation for S in terms of x and y .
- Which functions have a tendency to decrease?
- Choose **one** of the following statements best suitable for S and **one** best suitable for T:
 - The price for a number of bicycles compared to the number of bicycles bought.
 - The average speed of a car decreases until it becomes static.
 - If two men take A hours to complete a task, it will take eight men B hours to complete the same task.
 - A rock is thrown upwards. The rock reaches its maximum height and returns to the surface.

