16th October

Given

$$f(x) = 5x - 3$$
$$g(x) = 2x + 1$$

Find

Speed (m/s) 30 70 20 100 Time (s)

The speed-time graph shows the speed of a train between two underground stations.

Calculate the distance between the stations

Calculate the average speed for the journey

Solve

$$\frac{2}{x+1} - \frac{10}{x+4} = -1$$

Find the shortest possible distance between the line y = 5x and the point (-3, 10).