A lorry leaves a factory on a journey of 195 km at 08 45, travelling at an average speed of 52km/h.(b)On the return journey, the lorry leaves at 14 55 and arrives at factory at 18 15.Calculate the time taken and the average speed of the lorry on the return journey.

Time on the return journey:

$$t = 18{:}15 - 14{:}55 = 03{:}20 = 3h20m = 3h + \frac{20}{60}h = 3h + \frac{1}{3}h = \frac{10}{3}h$$

$$v_a = \frac{S}{t} = \frac{195km}{\frac{10}{3}h} = \frac{195 * 3}{10}km/h = 58.5km/h$$

Answer: $t = 3h20m$**,** $v_a = 58.5km/h$