Fred’s Taxi Company

\[ C = 0.5D + 5 \]

$0.50 / km

$5.00 fixed price

C = cost  \quad D = \text{kilometres}

1. City Centre = 17km

Fred’s Taxi:  \quad C = 0.5D + 5  \quad C = 0.5(17) + 5  \quad C = $13.5

P and G Taxi:  \quad C = 0.65D + 2  \quad C = 0.65(17) + 5  \quad C = $13.05

P and G Taxi Company will be cheaper than Fred’s when going to the city centre.

2. It would be cheapest to use P and G Taxi Company when travelling at a distance from 1km to 20 km. If you travel 20km or and above, it would be the same or a higher price than Fred’s.

Fred’s Taxi:  \quad C = 0.5D + 5  \quad C = 0.5(20) + 5  \quad C = $15

P and G Taxi:  \quad C = 0.65D + 2  \quad C = 0.65(20) + 5  \quad C = $15

These are the same

Fred’s Taxi:  \quad C = 0.5D + 5  \quad C = 0.5(19) + 5  \quad C = $14.50

P and G Taxi:  \quad C = 0.65D + 2  \quad C = 0.65(19) + 5  \quad C = $14.35

P and G is the cheapest

Fred’s Taxi:  \quad C = 0.5D + 5  \quad C = 0.5(21) + 5  \quad C = $15.5

P and G Taxi:  \quad C = 0.65D + 2  \quad C = 0.65(21) + 5  \quad C = $15.65

Fred’s is the cheapest

3. For Fred to be the cheapest use \( C = 0.5D + 1 \). This would be cheaper than his original rate and it would be cheaper than the P and G Taxi Company.