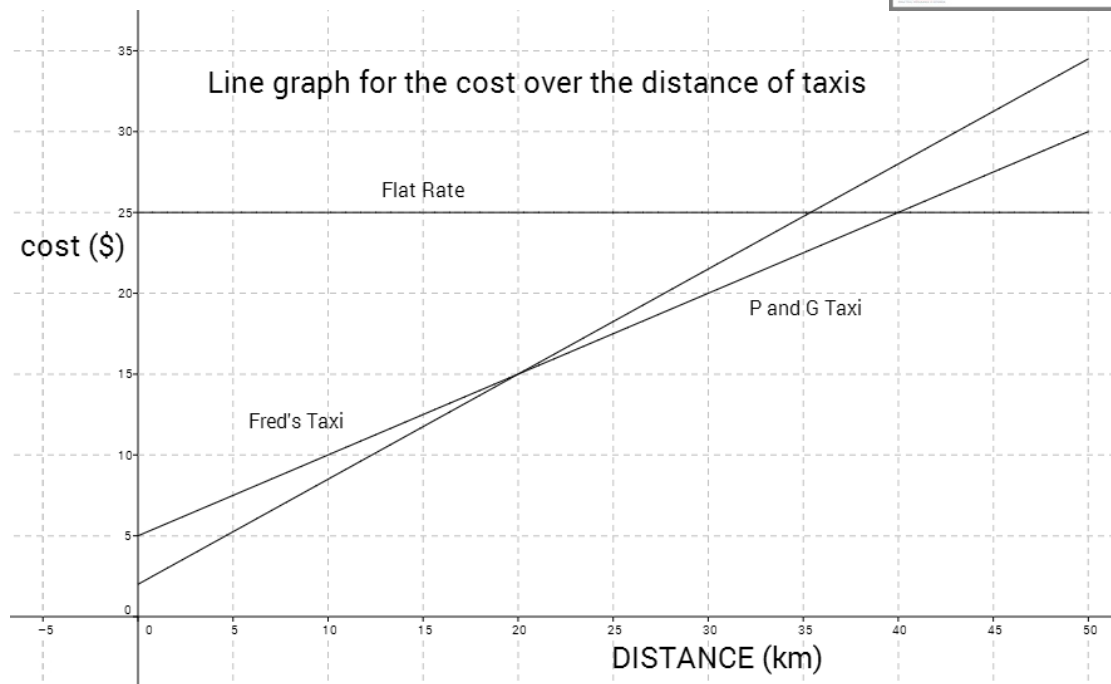


Student 3: Low Merit
 NZQA Intended for teacher use only



①

<p>Fred's Taxi Company $C = .5D + 5$ \$0.50 / km \$5.00 fixed price C = cost D = kilometres</p>	<p>P And G Taxi Company $C = .65D + 2$ \$0.65 / km \$2.00 fixed price</p>	<p>Flatrate Taxi Company $C = 25$ \$25 fixed price</p>
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1. City Centre = 17km

Fred's Taxi: $C = .5D + 5$	$C = .5(17) + 5$	$C = \$13.5$
P and G Taxi $C = .65D + 2$	$C = .65(17) + 5$	$C = \$13.05$

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

②

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: $C = .5D + 5$	$C = .5(20) + 5$	$C = \$15$
P and G Taxi $C = .65D + 2$	$C = .65(20) + 5$	$C = \$15$

These are the same

Fred's Taxi: $C = .5D + 5$	$C = .5(19) + 5$	$C = \$14.50$
P and G Taxi $C = .65D + 2$	$C = .65(19) + 5$	$C = \$14.35$

P and G is the cheapest

Fred's Taxi: $C = .5D + 5$	$C = .5(21) + 5$	$C = \$15.5$
P and G Taxi $C = .65D + 2$	$C = .65(21) + 5$	$C = \$15.65$

Fred's is the cheapest

③

3. For Fred to be the cheapest use $C = .5D + 1$. This would be cheaper than his original rate and it would be cheaper than the P and G Taxi Company.

④