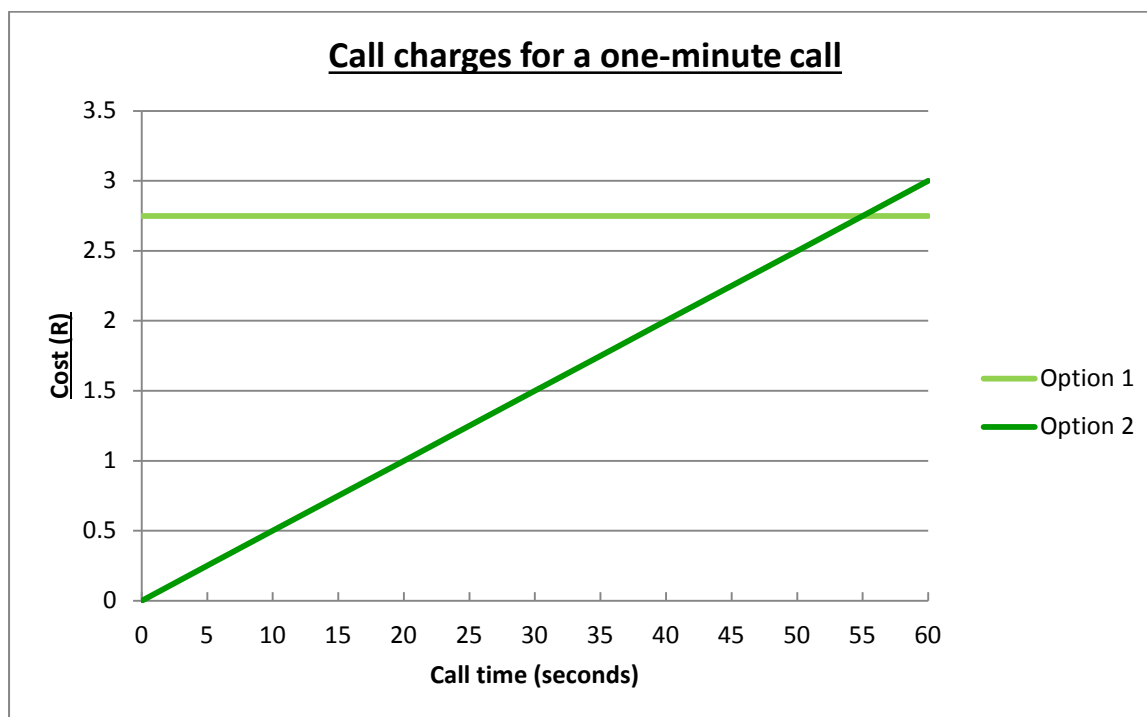


Activity 1

Cellphone providers charge calls either per minute or per second. If they charge per minute, the customer pays one price for each full minute, even if the call does not last for a full minute. For example, a call lasting 10 seconds, 30 seconds, 45 seconds or a full minute will cost the same.

Study the graph below, which shows two billing options, and answer the questions that follow.



1. Which option shows a per-second billing rate?
2. What is the price per second (in rand) for this option?
3. What is the price per minute (in rand) for the other option?
4. At how many seconds do the two options charge the same rate?
5. How much would a two-minute phone call cost with Option 1?
6. How much would a two-minute phone call cost with Option 2?
7. Sandra likes to make longer phone calls (lasting around five (5) minutes). Which option should she choose? Explain your choice.

Activity 2

Leesha and her friends decide to go on a trip to a theme park. They need to hire a taxi in order to get there. There are two options available:

Tina's Taxis: R650 flat rate for the day.

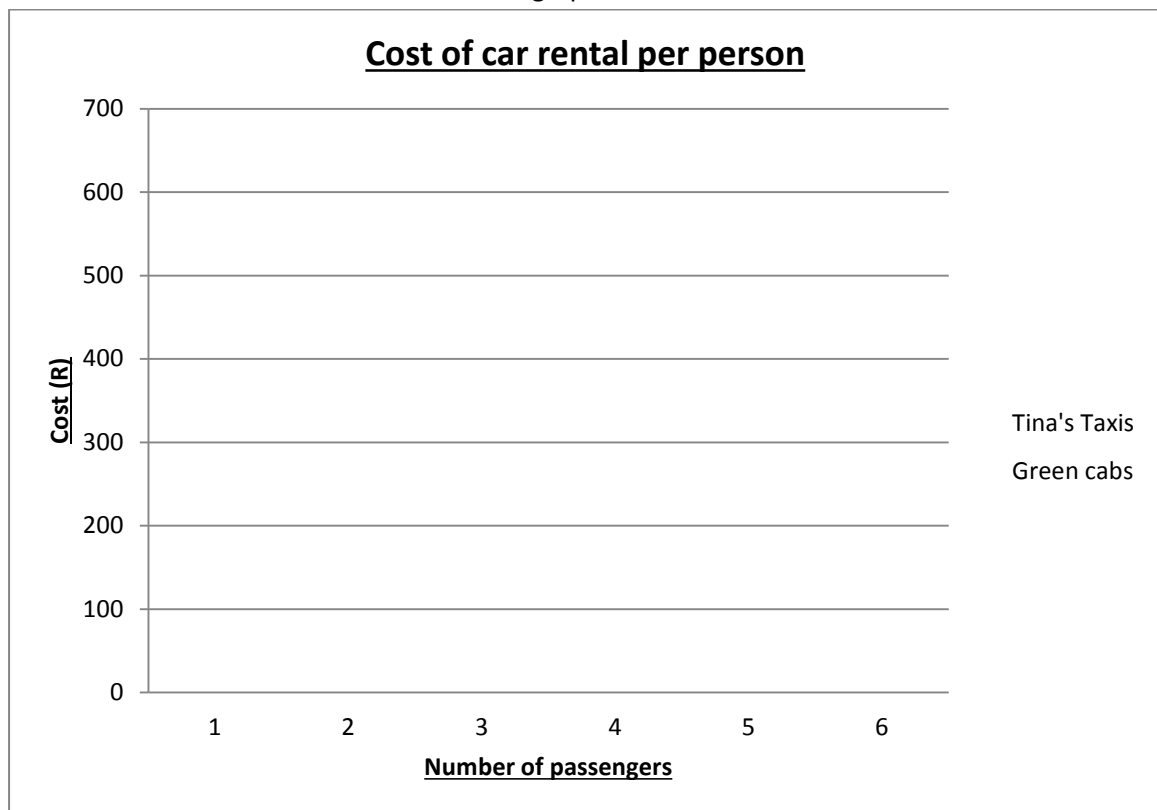
Green cabs: R200 rental fee (split between passengers) plus R90 per passenger.

Leesha is unsure of which option to choose or how many friends will be available.

- Complete the table below calculating the cost per passenger with each taxi. Show all calculations.

No. of passengers						
	1	2	3	4	5	6
Tina's Taxis		325				
Green cabs		190				

- Plot the information in the table as two line graphs on the axes below.



- How many passengers are required to make sure they pay the same amount each regardless of which company they choose?
- Which is the best company if three (3) people can make it?
- Which is the best company if six (6) people can make it?
- Do the graphs show direct or inverse proportion? Explain your answer.