'Reasoning from Evidence'
Ordering a Cab - Example #3

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The aim of this assessment are to provide the opportunity for you to:
- use appropriate calculations to analyze data
- use appropriate graphs and/or diagrams to analyze data
- reason clearly and convincingly.

Sunshine cabs and Bluebird cabs are rival companies.

Each claims that their cab company is better than the other.

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Sarah has to take a cab to work each day. She wants to compare the two companies.

Over several months Sarah orders each cab 20 times. She records how early or late they are when arriving to pick her up from her home.

Her results are shown on the next page...

Cab data sheet

Sunshine cabs		Bluebird cabs	
3 mins 30 secs	Early	3 mins 45 secs	Late
45 secs	Late	4 mins 30 secs	Late
1 min 30 secs	Late	3 mins	Late
4 mins 30 secs	Late	5 mins	Late
45 secs	Early	2 mins 15 secs	Late
2 mins 30 secs	Early	2 mins 30 secs	Late
4 mins 45 secs	Late	1 min 15 secs	Late
2 mins 45 secs	Late	45 secs	Late
30 secs	Late	3 mins	Late
1 minute 30 secs	Early	30 secs	Early
2 mins 15 secs	Late	1 min 30 secs	Late
9 mins 15 secs	Late	3 mins 30 secs	Late
3 mins 30 secs	Late	6 mins	Late
1 min 15 secs	Late	4 mins 30 secs	Late
30 secs	Early	5 mins 30 secs	Late
2 mins 30 secs	Late	2 mins 30 secs	Late
30 secs	Late	4 mins 15 secs	Late
7 mins 15 secs	Late	2 mins 45 secs	Late
5 mins 30 secs	Late	3 mins 45 secs	Late
3 mins	Late	4 mins 45 secs	Late

1. At the moment, it is hard to see which company is the best.
   Use appropriate calculations, graphs and/or diagrams to analyze the data so that comparisons are easier to make. Show all your reasoning.

2. Present a reasoned case for Sunshine cabs being the better company.
   Present your reasoning as fully and as clearly as possible.

3. Present a reasoned case for Bluebird cabs being the better company.

4. Which argument do you think is the most convincing? Why?