## Buses

The diagram below is a distance-time graph.

1. The sloping line shows the journey of a bus from City A to City B.

The bus leaves City A at 9 am (0900) and arrives at City B at 9:30am (0930)
a. How far is it from City A to City B? $\qquad$ miles
b. How long does the bus journey take? $\qquad$ minutes

2. Another bus leaves City B at 0900 and arrives at City A at 0930 .
a. Draw a line on the diagram to show the journey of this second bus.
b. At what time do the two buses pass each other? $\qquad$
3. Buses leave City A and City B every 10 minutes during the morning, repeating the two journeys shown on your graph.
a. On your graph, draw a line to show the bus that leaves City A at 0920.
b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

Explain how you figured it out.
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$\qquad$
c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

