Buses

T1

This problem gives you the chance to:
- interpret and use a travel graph

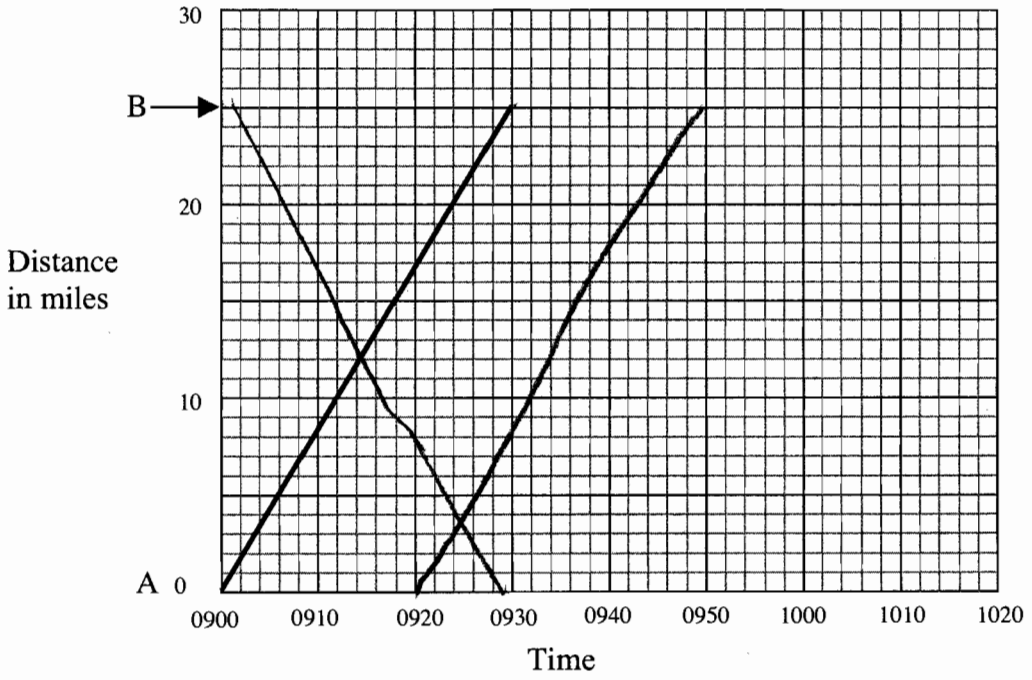
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 ✓ miles

   b. How long does the bus journey take? 30 ✓ 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? 0915 ✓

T1

3. Buses leave City A and City B every 10 minutes during the morning, repeating the two journeys shown on your graph. 1

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? 1

5 ✓

Explain how you figured it out.

Every 10 minutes on line B there would be a line so 50÷10=5. ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction? -1

4 miles ✓

8 (8)

Buses

T2

This problem gives you the chance to:
- interpret and use a travel graph

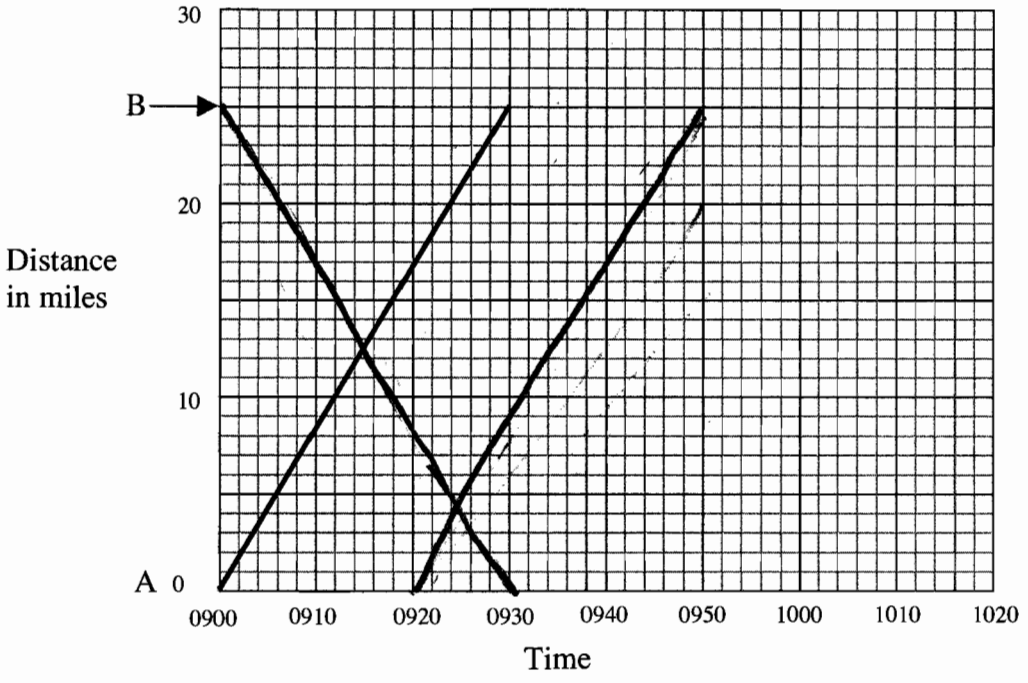
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 ✓ miles

   b. How long does the bus journey take? 30 ✓ 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? 10:15 ×

T2

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

three x 0

Explain how you figured it out.

three, because for each ten minutes that passes, 0
he meets another bus, and it takes him 30 minuets,
or 3x10 to get to City B x

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

about 10 miles
x 0

4

Buses

T3

This problem gives you the chance to:
- interpret and use a travel graph

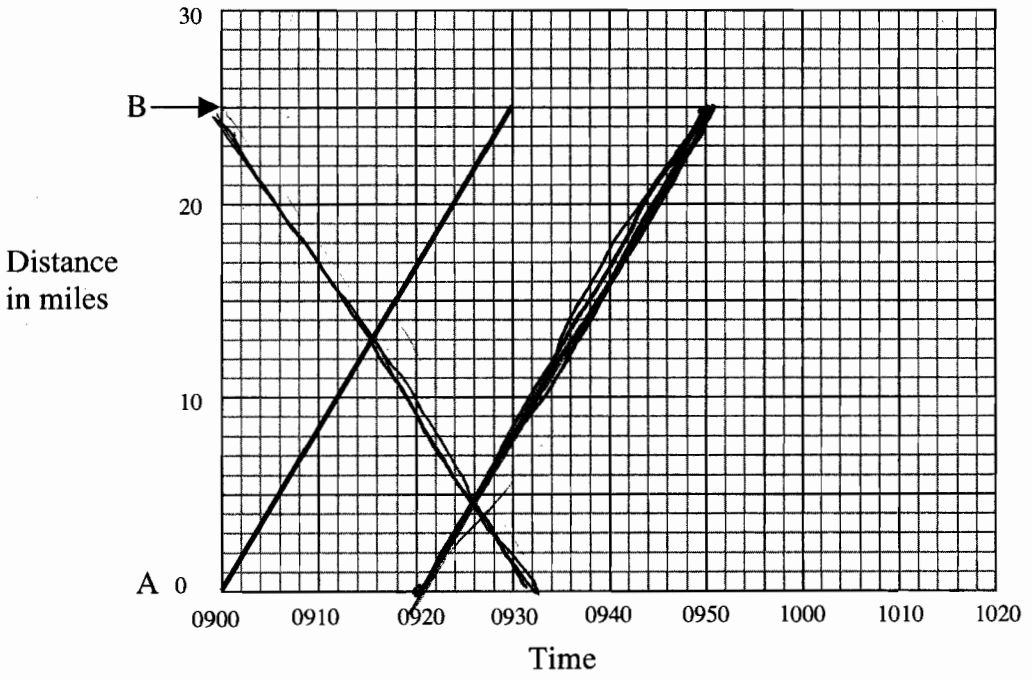
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 ✓ miles 1

   b. How long does the bus journey take? 30 ✓ minutes 1



1

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. 1

   b. At what time do the two buses pass each other? 9:15 am ✓

T3

3. Buses leave City A and City B every 10 minutes during the morning, repeating the two journeys shown on your graph. ✓ 1

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?

2 x 0

Explain how you figured it out.

beause its a 30min drive & a bus leave's every 20 min. x 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

12.5miles x 0

8 (5)

Buses

T4

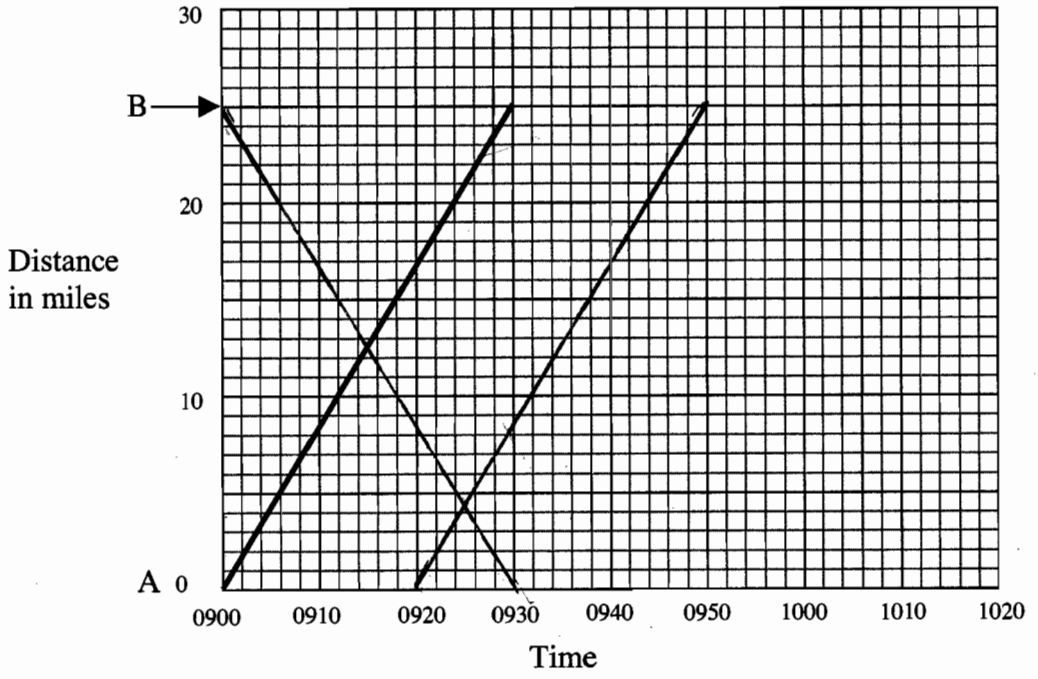
This problem gives you the chance to:
- interpret and use a travel graph

The diagram below is a distance-time graph.

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

   a. How far is it from City A to City B? 25 miles

   b. How long does the bus journey take? 30 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? 9:15

T4

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. 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

6 buses ✓ 1

Explain how you figured it out.

30 total minutes ÷ 5 minute intervals when meeting each bus = (6 buses) ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

9 miles 0

Buses

T5

This problem gives you the chance to:
- interpret and use a travel graph

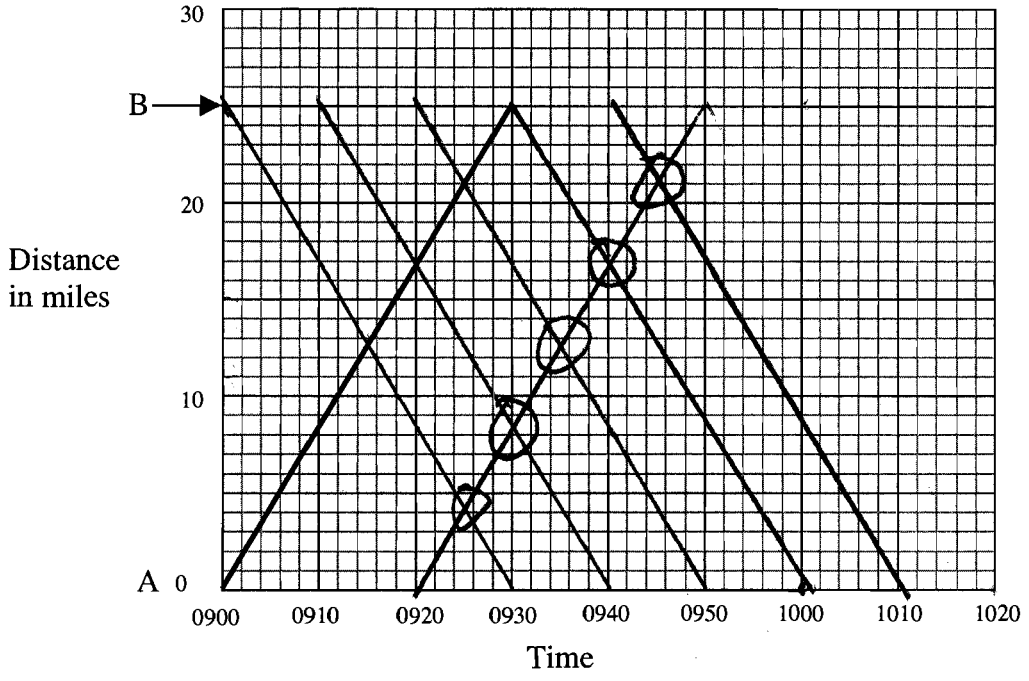
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



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. ✓ 1

   b. At what time do the two buses pass each other? 9:15 ✓ 1

T5

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B? 5 ✓ 1

Explain how you figured it out.

Buses leave City a & b every ten minunts the graphs show where they meet ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction? 12&13 miles ✗ 0

(7)

Buses

S1

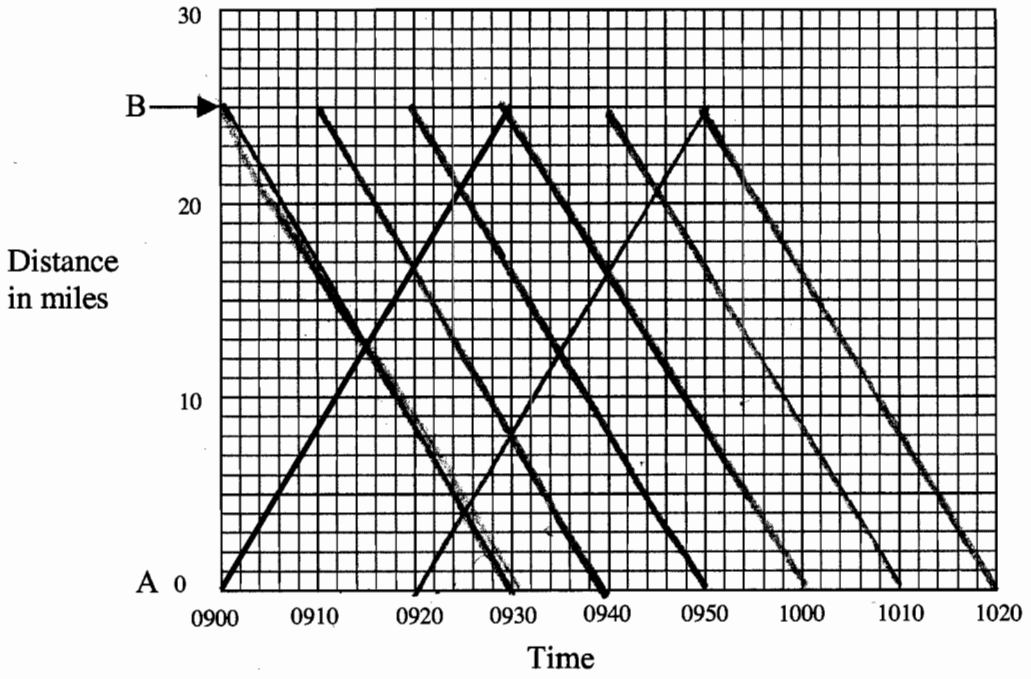
This problem gives you the chance to:
- interpret and use a travel graph

The diagram below is a distance-time graph.

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

   a. How far is it from City A to City B? 25 miles

   b. How long does the bus journey take? 30 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? 0915

S1

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. 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

5 1

Explain how you figured it out.

I drew lines from B to A and counted them, not including where it stops. 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

4 miles 1

8/8

Buses

S2

This problem gives you the chance to:
- interpret and use a travel graph

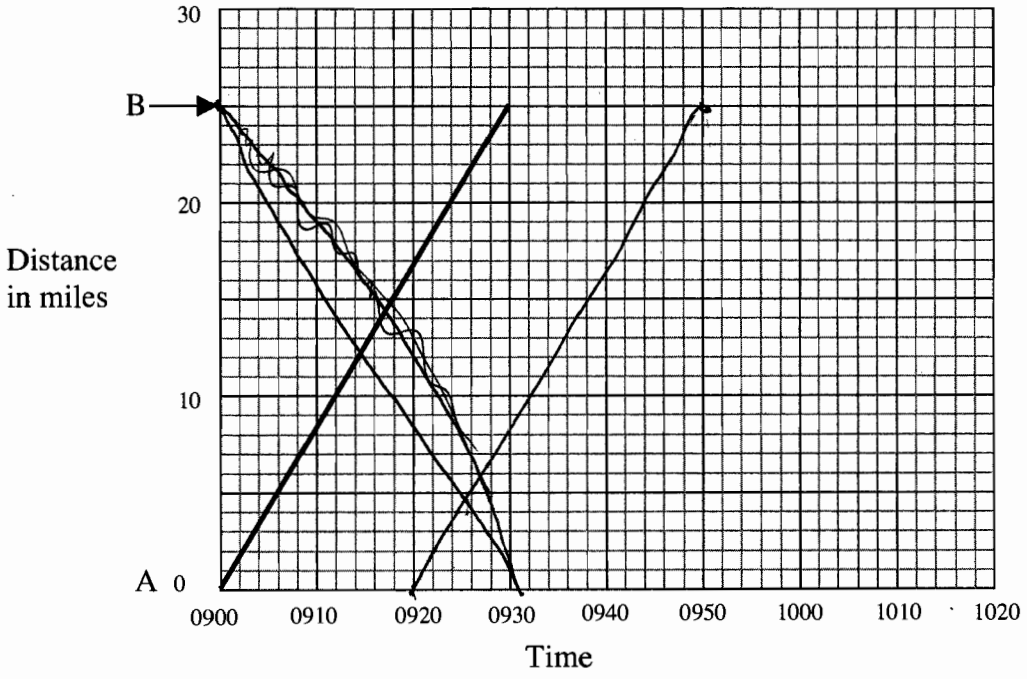
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 ✓ miles

   b. How long does the bus journey take? 30 ✓ 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? 9:15 ✓

S2

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

_____ 0

Explain how you figured it out.

X

There will be two one that left at 9:00 for 0
City A and one that left at 9:20 for city A. X

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

5 miles. X 0

(5)

Buses

S3

This problem gives you the chance to:
- interpret and use a travel graph

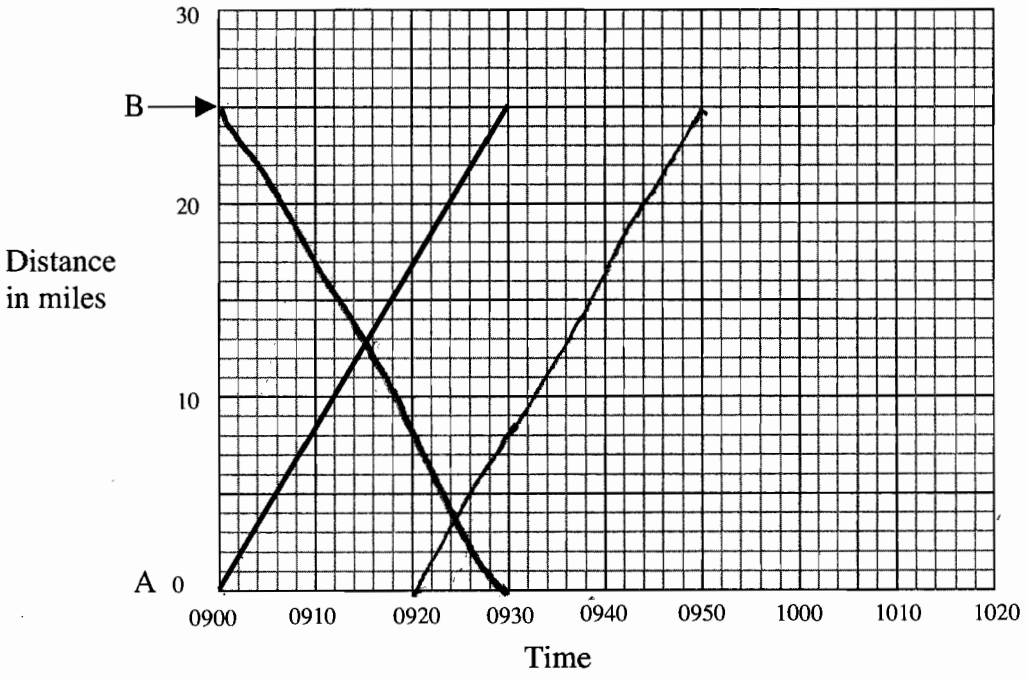
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



2. Another bus leaves City B at 0900 and arrives at City A at 0930. ✓ 1

   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? 14 minutes. ✗ 0

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

one x 0

Explain how you figured it out.

because it shows on the graph that the line crosses over 1 line. x 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

4 minutes ✓ 1

bod.

8 (5)

Buses

S4

This problem gives you the chance to:
- interpret and use a travel graph

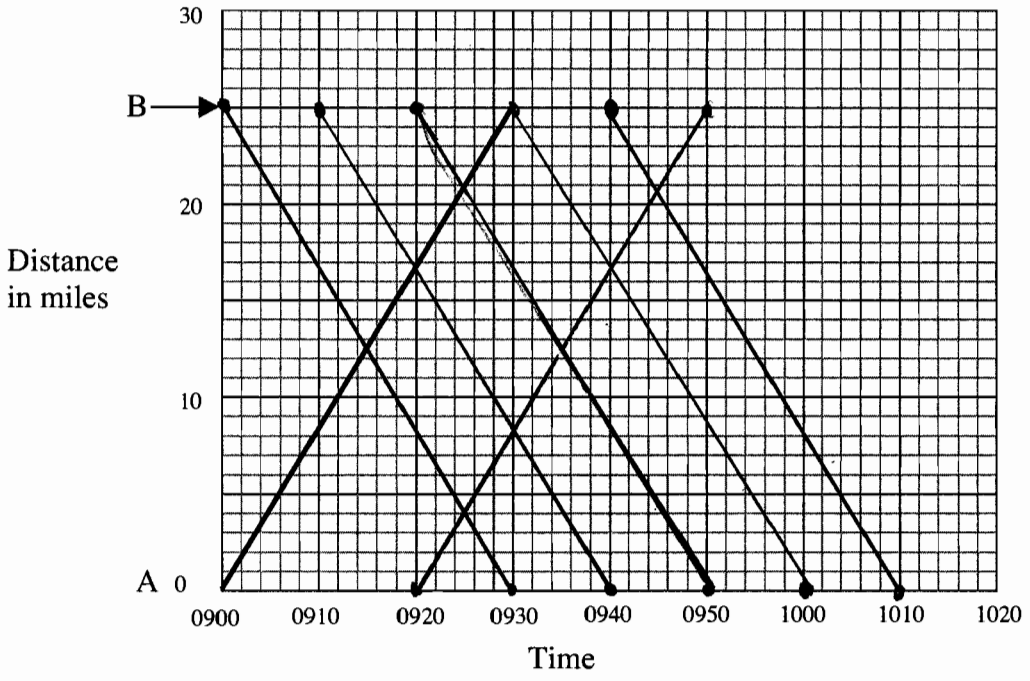
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



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. ✓ 1

   b. At what time do the two buses pass each other? about 915 ✓ 1

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

5 ✓ 1

Explain how you figured it out.

I drew lines until they would no longer cross and I got 5. ✓ ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

22 miles ✗ 0

8 (7)

Buses

This problem gives you the chance to:
- interpret and use a travel graph

S5

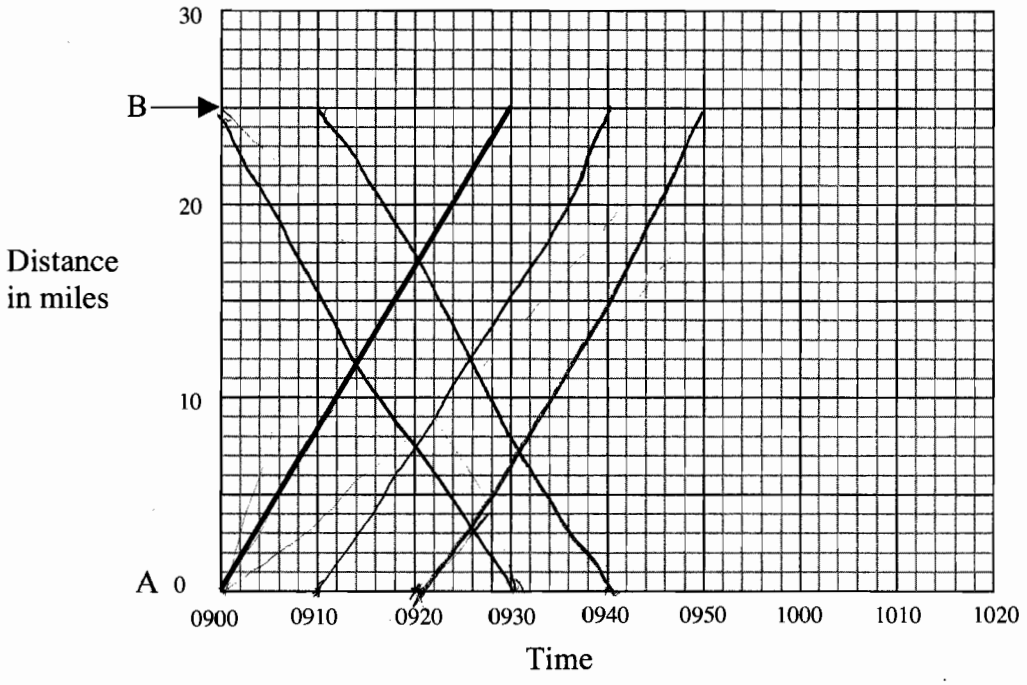
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles

   b. How long does the bus journey take? 30 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? 9:15 am (0915)

3. Buses leave City A and City B every 10 minutes during the morning, repeating the two journeys shown on your graph. ✓ 1

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?

2 x 0

Explain how you figured it out.

the diagram! If you keep adding lines, it shows you how many buses. ^ 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

12 miles x 0

5

Buses

S6

This problem gives you the chance to:
- interpret and use a travel graph

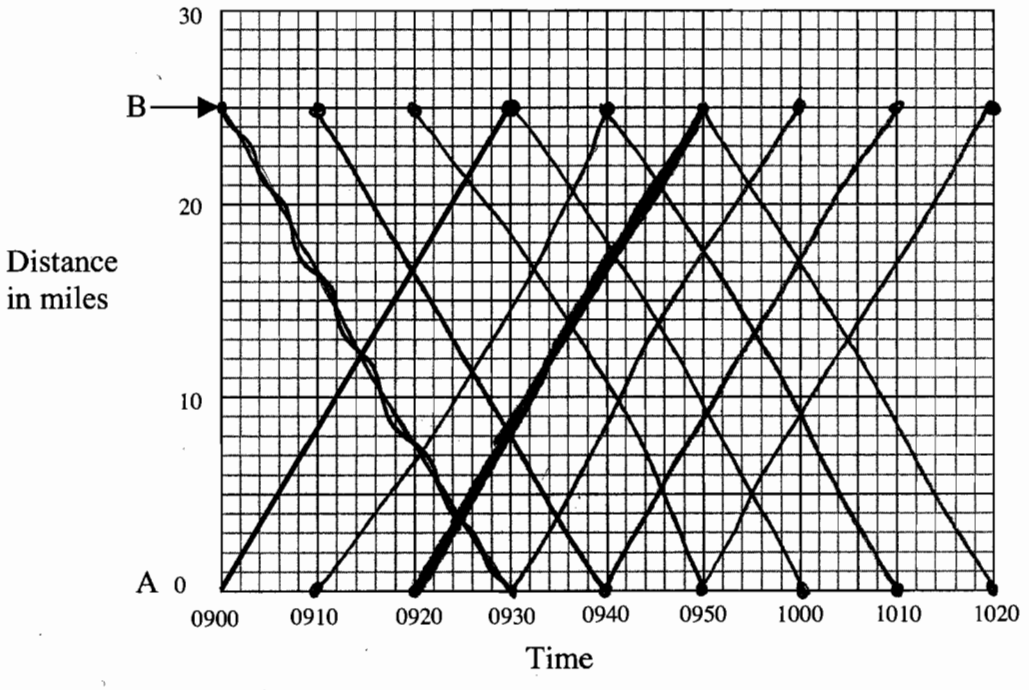
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 ✓ miles

   b. How long does the bus journey take? 30 / 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? 9:15 /

S6

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B? 1

5 buses ✓

Explain how you figured it out.

I drew all the other buses and counted how many crossed paths with the bus in question. ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction? 1

4 miles ✓

Buses

S7

This problem gives you the chance to:
- interpret and use a travel graph

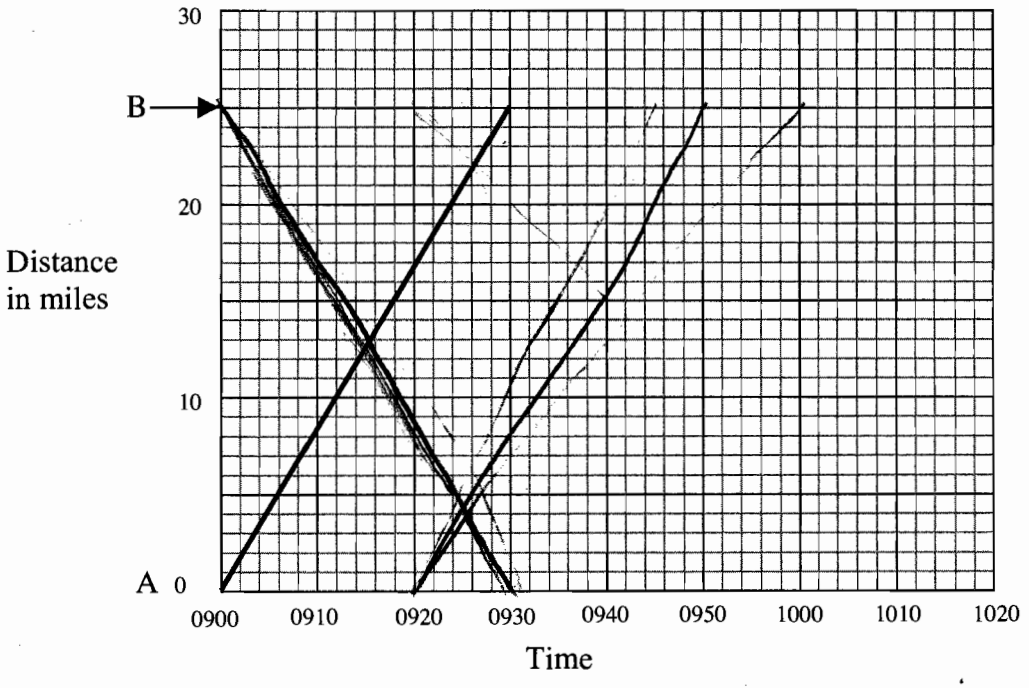
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 / miles

   b. How long does the bus journey take? 30 / 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? 9:12 *

S7

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

2 x 0

Explain how you figured it out.

The buses leave every 10 min.
x 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

15 miles
x 0

8 (4)

Buses

S8

This problem gives you the chance to:
- interpret and use a travel graph

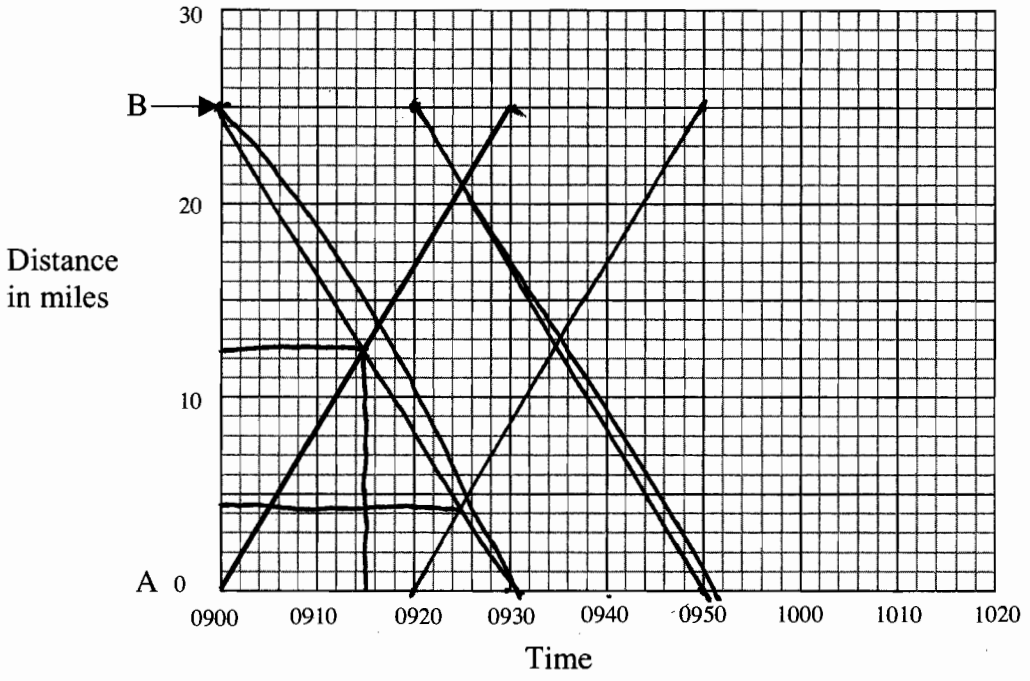
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



2. Another bus leaves City B at 0900 and arrives at City A at 0930. ✓ 1

   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? @ 9:15 ✓ 1

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

2 ✗ 0

Explain how you figured it out.

The graph shows two buses passing it before it gets there. 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

21 miles 0
✗

8 5

Buses

S9

This problem gives you the chance to:
- interpret and use a travel graph

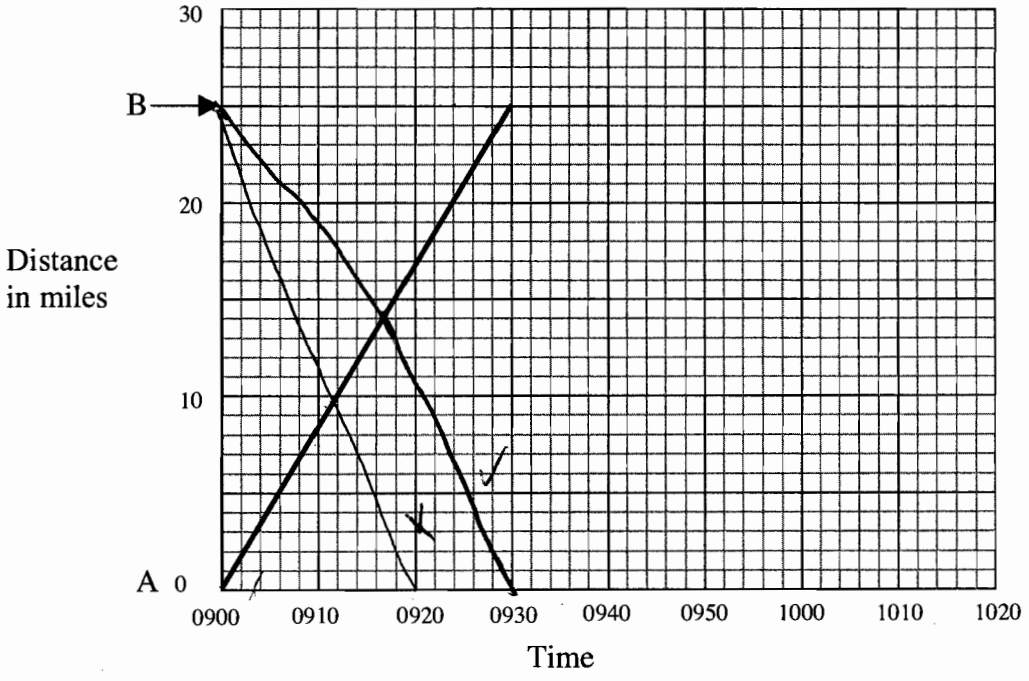
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



2. Another bus leaves City B at 0900 and arrives at City A at 0930. 1

   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? 9:16 (0916) ✓ 1

S9

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. 0

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B?

5 ✓ 1

Explain how you figured it out.

because there will be one from B to A at 910, 920, 930 and A to B at 910 and 930. 0

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction?

15 miles ✗ 0

(5)

Buses

S10

This problem gives you the chance to:
- interpret and use a travel graph

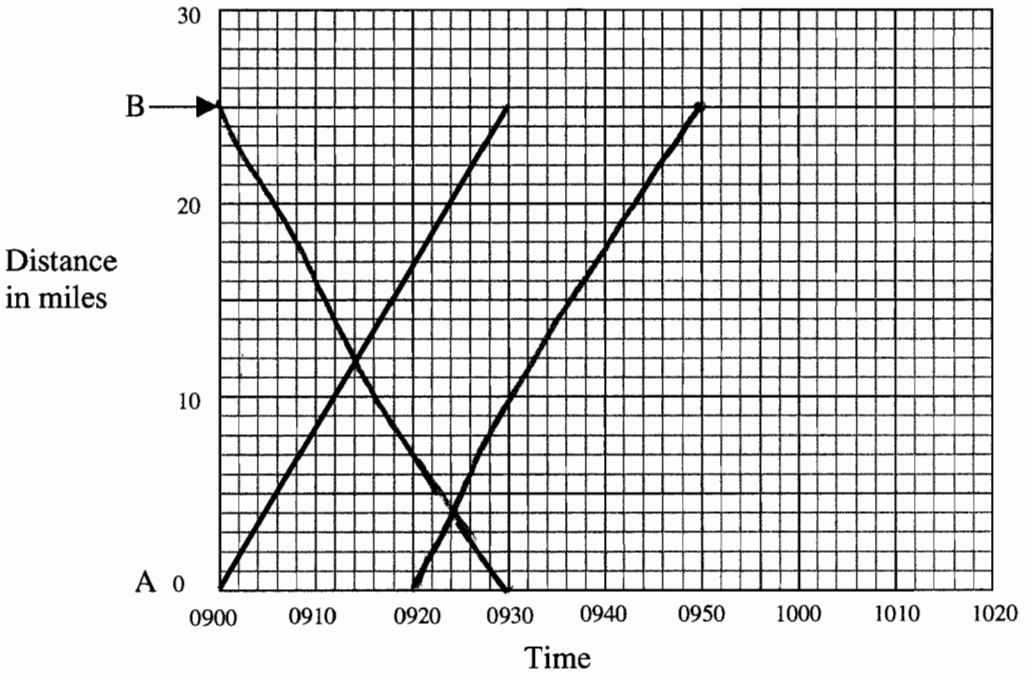
The diagram below is a distance-time graph.

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

   The bus leaves City A at 9am (0900) and arrives at City B at 9:30am (0930)

   a. How far is it from City A to City B? 25 miles ✓ 1

   b. How long does the bus journey take? 30 minutes ✓ 1



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. ✓ 1

   b. At what time do the two buses pass each other? 12.5 ✗ 0

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. ✓ 1

b. How many buses traveling in the opposite direction will this bus meet before it reaches City B? 5 ✓ 1

Explain how you figured it out.

b/c theres 50 minutes and each bus leaves at 10 minute intervals ✓ 1

c. How far is the bus from City A when it meets the first bus travelling in the opposite direction? 4 ✓ 1