Journey

T1

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

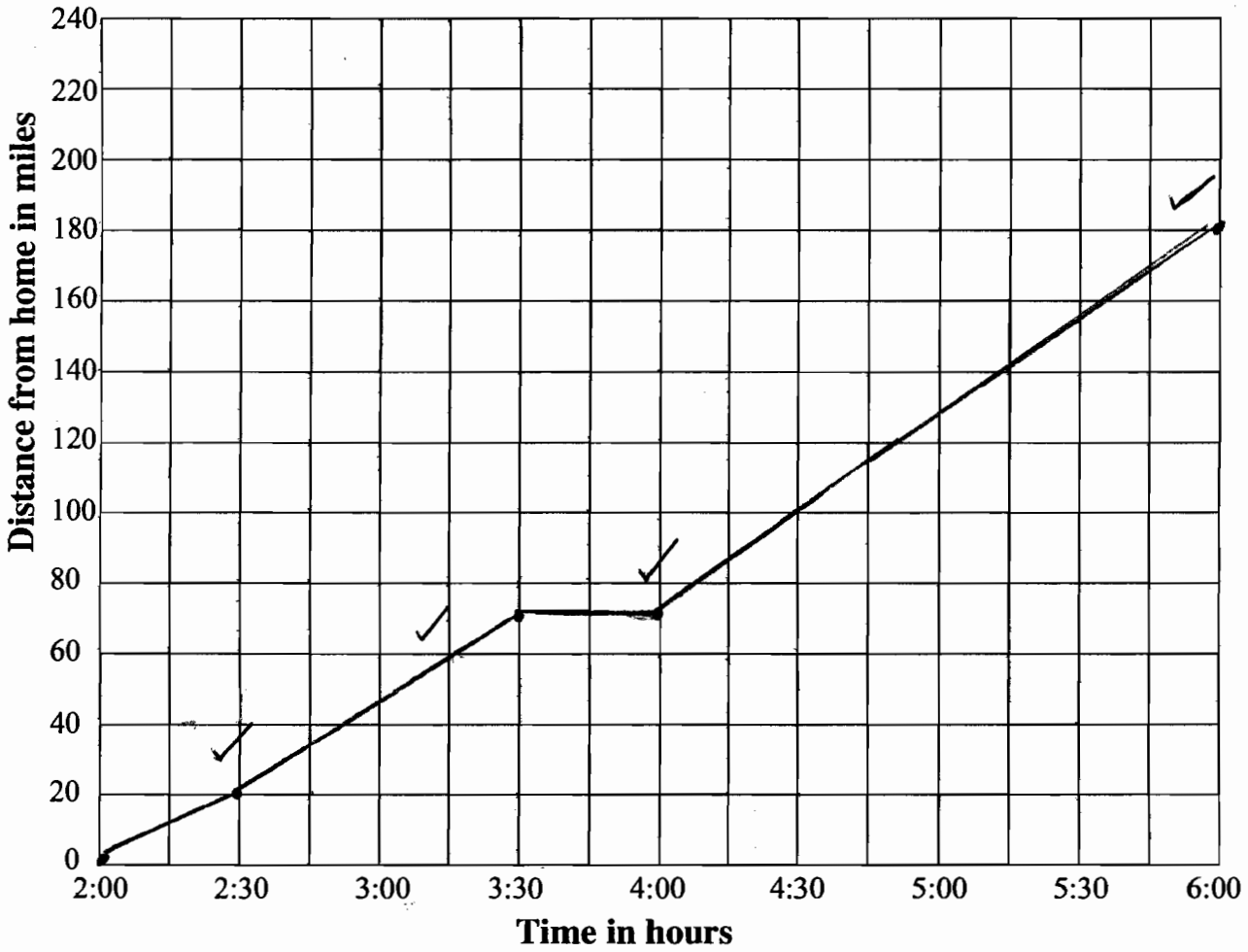
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

✓ 2

2. Draw a distance-time graph for this journey on the grid below.



✓ 2

T1

3. What is the average speed for the whole journey? 45mph ✓1

Explain how you figured it out.

I figured that if I divided the trip into 1/2 hour sections and what speed the car was traveling at for each 1/2 section and added all 8 sections speeds together & divided by 8 I could get the average speed.

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 140✓ miles 1

b. At what time I had traveled 60 miles from home. 3:15✓ 1

40
50
50
0
55
55
55
55
360

(7)

7

Journey

T2

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

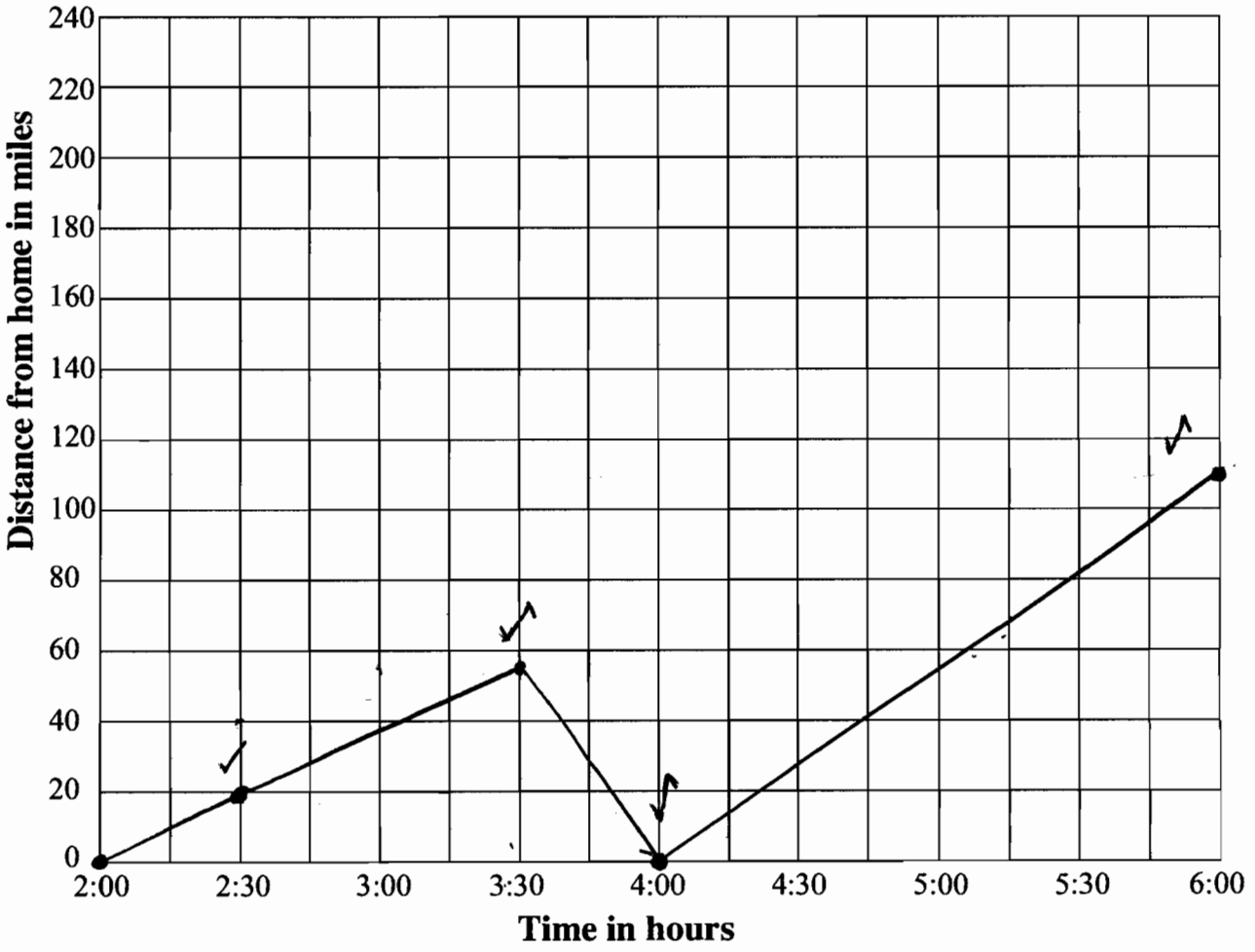
Here is a description of a car journey.

> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20 ✓	55 ×	0 ×	110 ✓

2. Draw a distance-time graph for this journey on the grid below.



T2

3. What is the average speed for the whole journey? x 30 mph o

Explain how you figured it out.

I added all the numbers in the chart up then x divided by 5

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 70 ✓ miles 1ft

b. At what time I had traveled 60 miles from home. 5:05 ✓ 1ft

7 (4)

Journey

T3

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

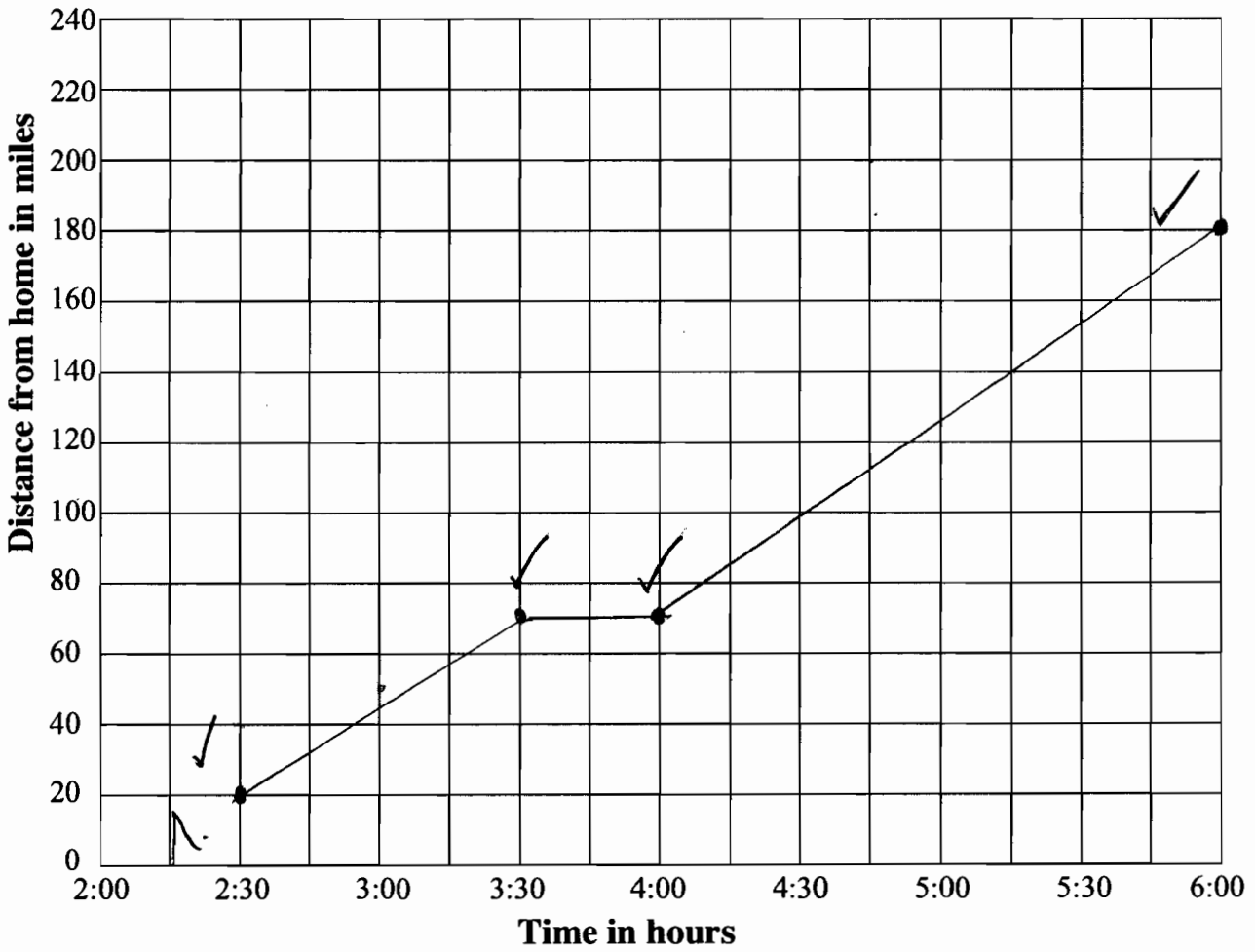
Here is a description of a car journey.

> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

2. Draw a distance-time graph for this journey on the grid below.



T3

3. What is the average speed for the whole journey? 50 mph

Explain how you figured it out.

I knew that 1/4 of her time she was going 40+50 mph, and 1/2 of it she was going 55 mph, so then I got 40, 50, 55, 55, and found the mean for that ✓ 0

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 140 ✓ miles 1

b. At what time I had traveled 60 miles from home. about 3:20 ✓ 1

1hr. 40 mph
1hr = 50 mph
1/2 hr - STOP
2hr = 55 mph

40, 50, 55, 55

1/4 = 40 mph

1/4 = 50 mph

1/2 = 55 mph

(5)

7

Journey

T4

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

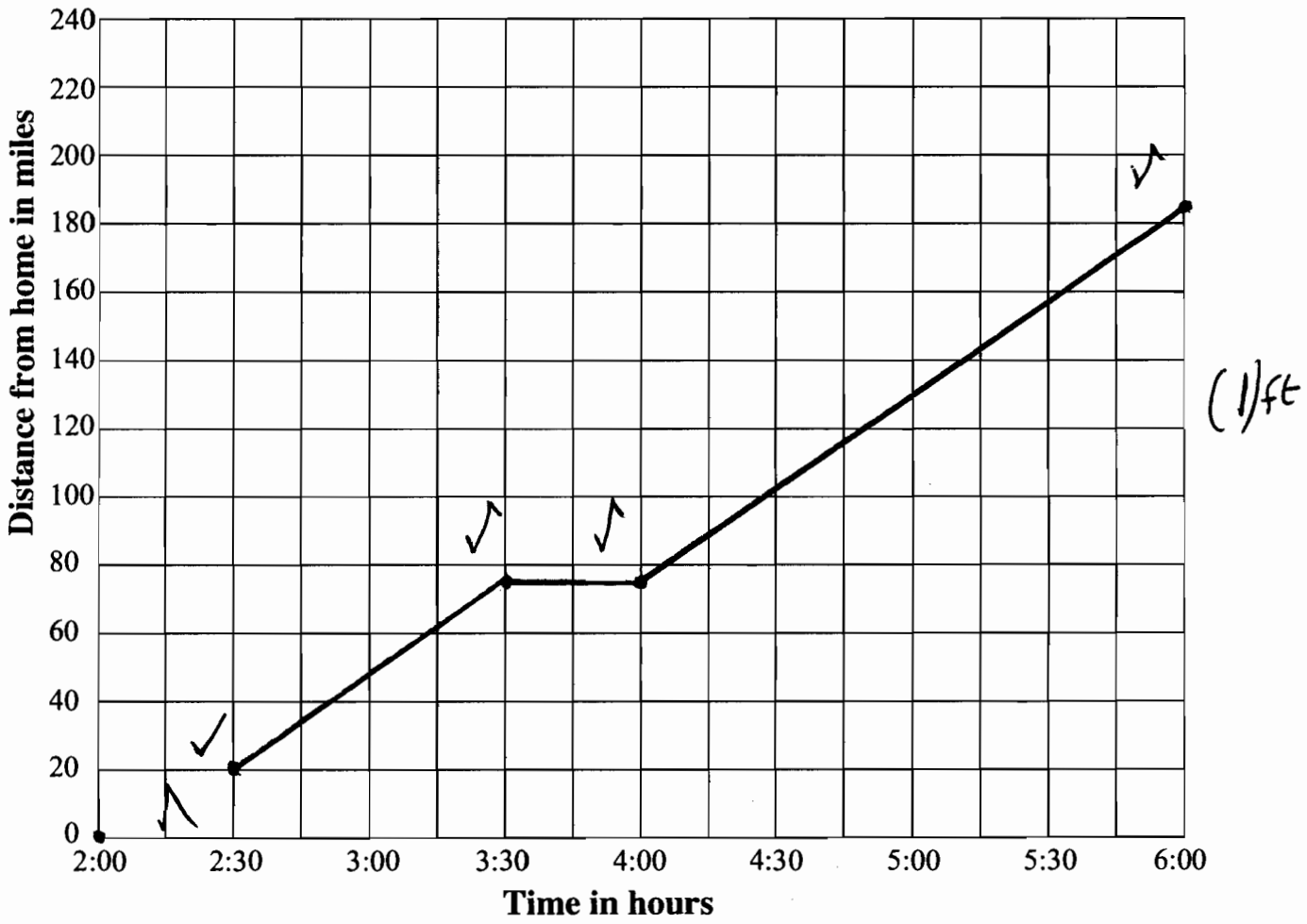
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	75	75	185

(1)

2. Draw a distance-time graph for this journey on the grid below.



(1)ft

T4

3. What is the average speed for the whole journey? 48.3 mph.

Explain how you figured it out.

I added up 40+50+55 and got 145. Then I divided that by 3 and got 48.3, x 0.

4. Use your graph to find:

a. How far from home I had traveled by 5:15. ✓ 1

about 140 miles

b. At what time I had traveled 60 miles from home. ✓ 1

3:15

(4)

7

Journey

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

T5

Here is a description of a car journey.

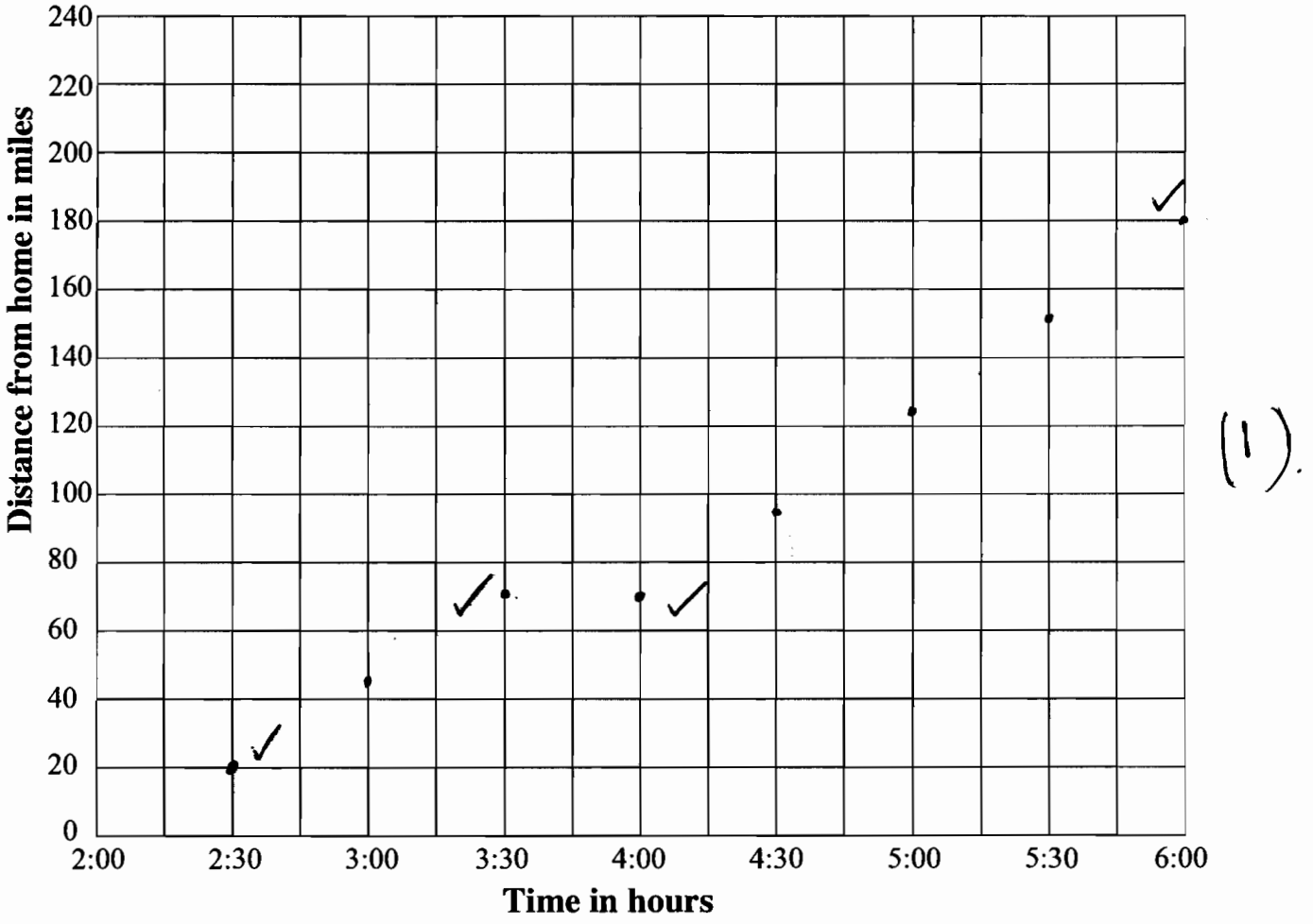
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

✓ 2

2. Draw a distance-time graph for this journey on the grid below.



(1)

T5

3. What is the average speed for the whole journey? 45 mph ✓

Explain how you figured it out. 1

I divided 180 by 4. ✓

4. Use your graph to find: ✓ 1

a. How far from home I had traveled by 5:15.

138.75 miles

b. At what time I had traveled 60 miles from home. ✗ 0

about 1 1/4

5

7

Journey

S1

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

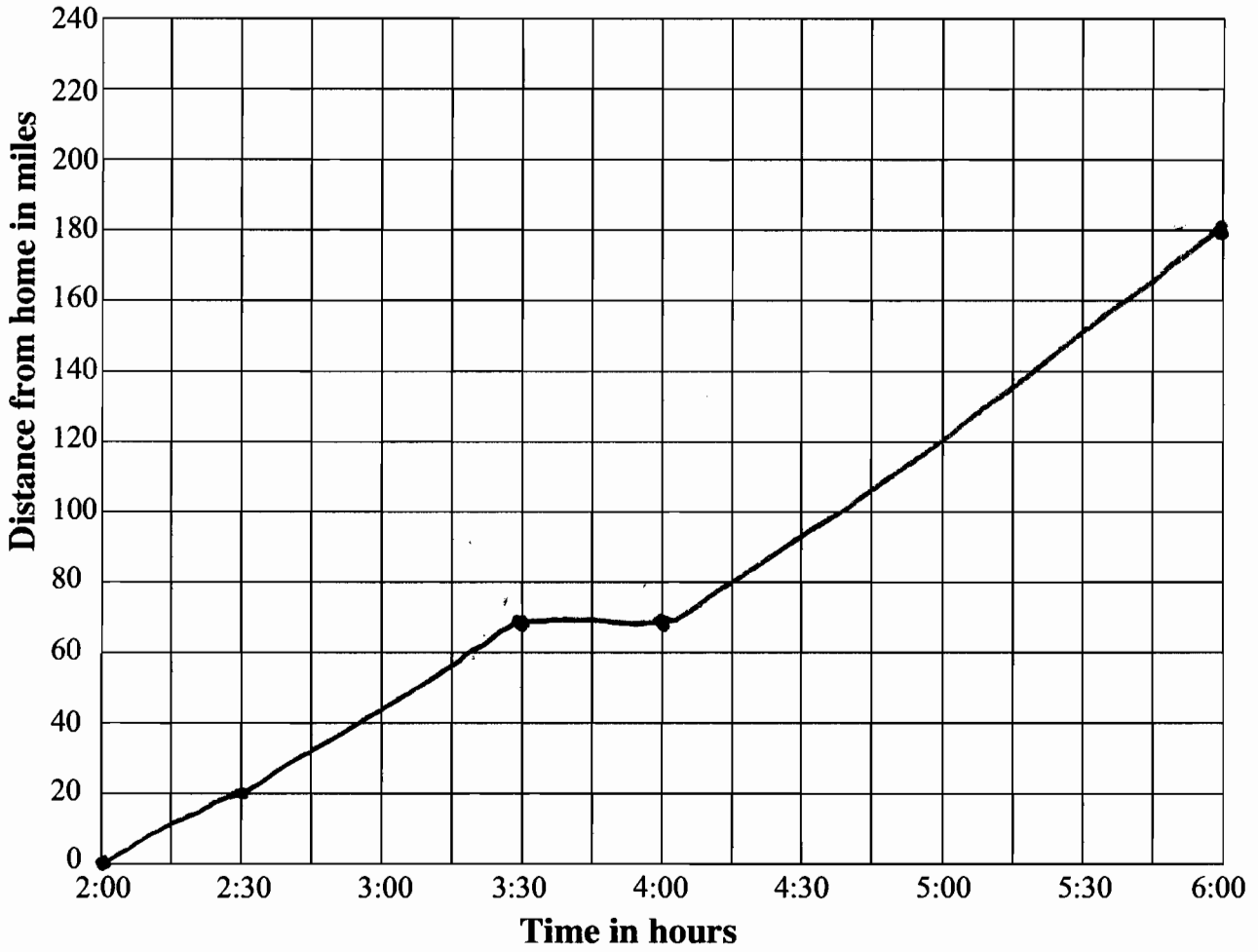
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	30	70	70	180

2

2. Draw a distance-time graph for this journey on the grid below.



2

3. What is the average speed for the whole journey? 45mph 1

Explain how you figured it out.

You did 180 by 40 you get 4.5 mph. She traveled 9 hours and went 180 miles from home So 45 mph.

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 130 ✓ 1 miles

b. At what time I had traveled 60 miles from home. 3:10 x 0

(6)

7

Journey

S2

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

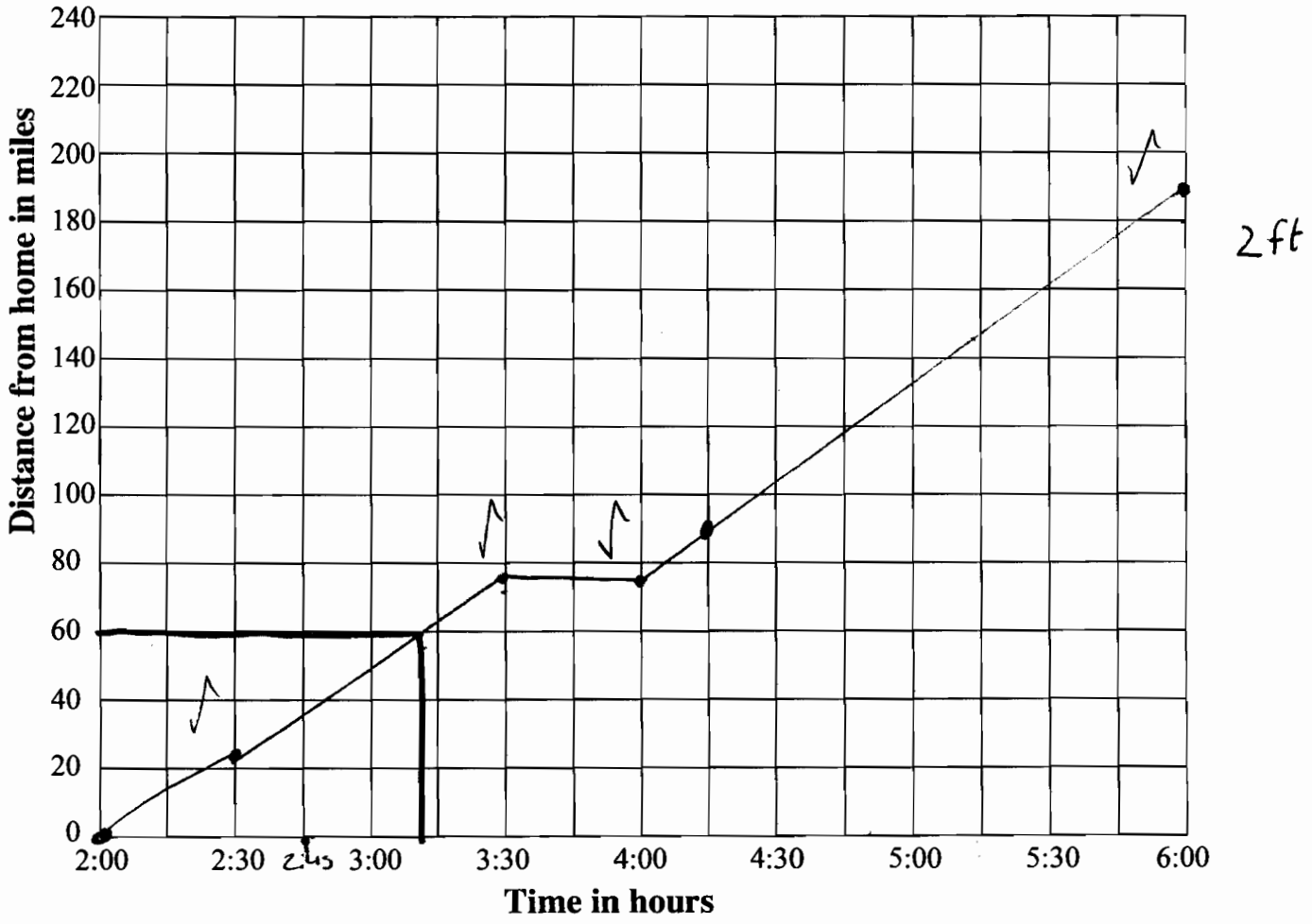
Here is a description of a car journey.

> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	22.5	77.5	77.5	187.5

2. Draw a distance-time graph for this journey on the grid below.



S2

3. What is the average speed for the whole journey? 46.875

Explain how you figured it out.

I added all the mph's up then 0
divided it by 4 for how many # i added

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 90 x 0 miles

b. At what time I had traveled 60 miles from home. 3:10 ✓ /

(3)

7

Journey

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

S3

Here is a description of a car journey.

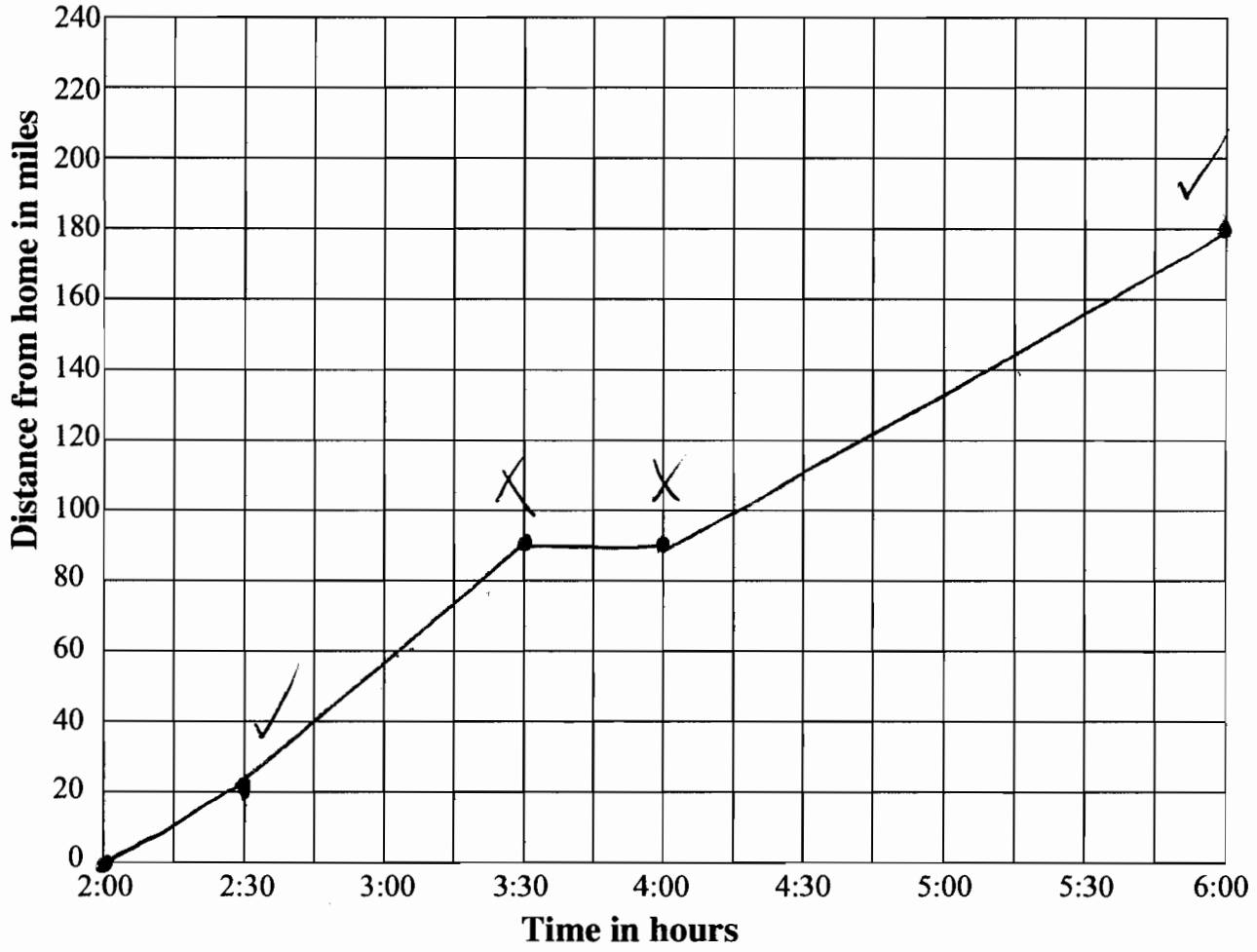
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

2

2. Draw a distance-time graph for this journey on the grid below.



(1)

S3

3. What is the average speed for the whole journey?

45 mph

Explain how you figured it out.

40+50+50+0+55+55+55+55=360÷8=45 ✓ 1

4. Use your graph to find:

a. How far from home I had traveled by 5:15.

145 ✓ 1ft miles

b. At what time I had traveled 60 miles from home.

3:10 ✓ 1ft

6

7

Journey

S4

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

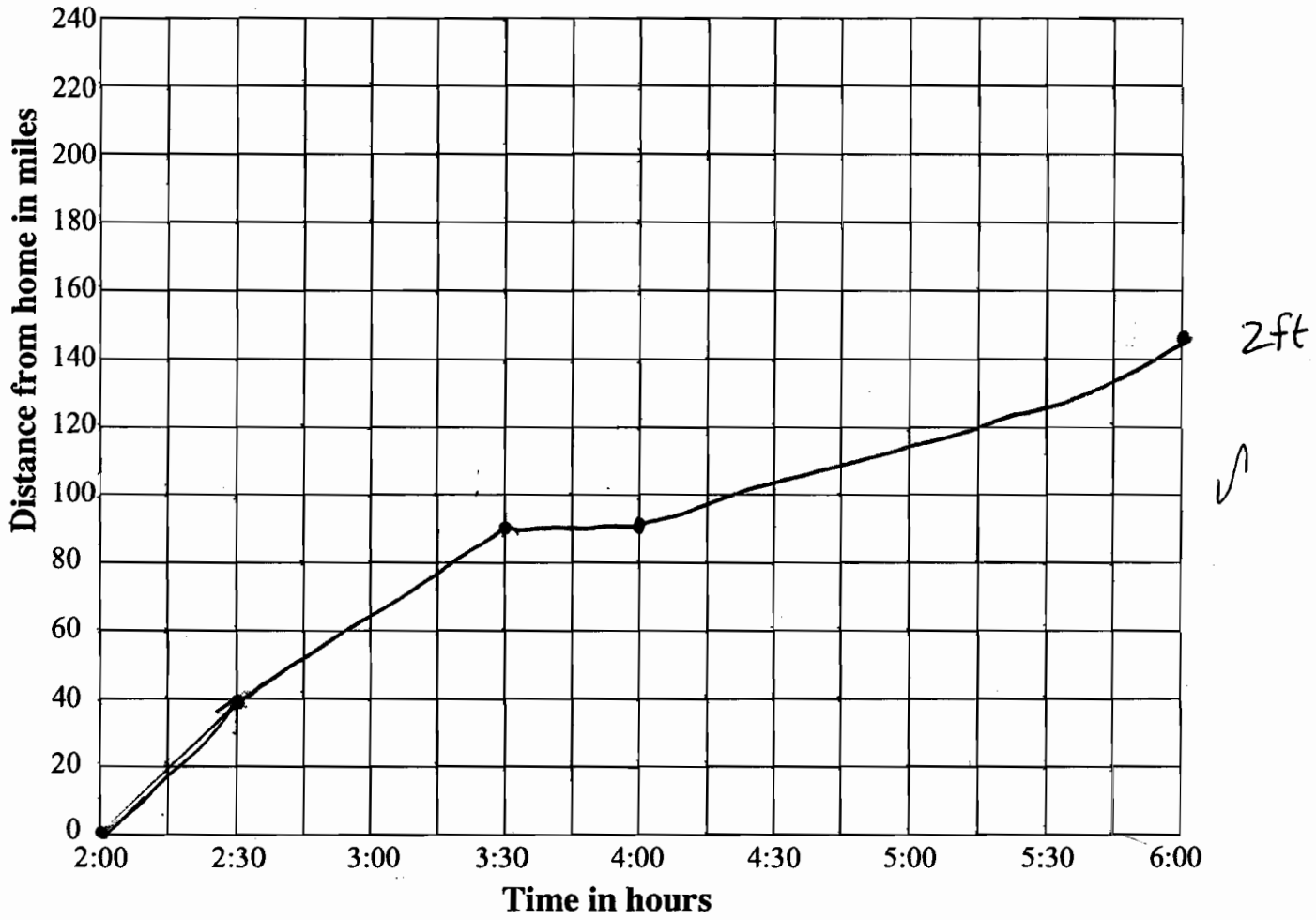
1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	40	90	90	145

✓ ✗ ✗ ✓ ✗

0

2. Draw a distance-time graph for this journey on the grid below.



2ft

✓

S4

3. What is the average speed for the whole journey? 50 x 0

Explain how you figured it out.

I just counted the distance between the miles away from home

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 9.70 x miles 0

b. At what time I had traveled 60 miles from home. 1.20 x 0

(2)

7

Journey

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

S5

Here is a description of a car journey.

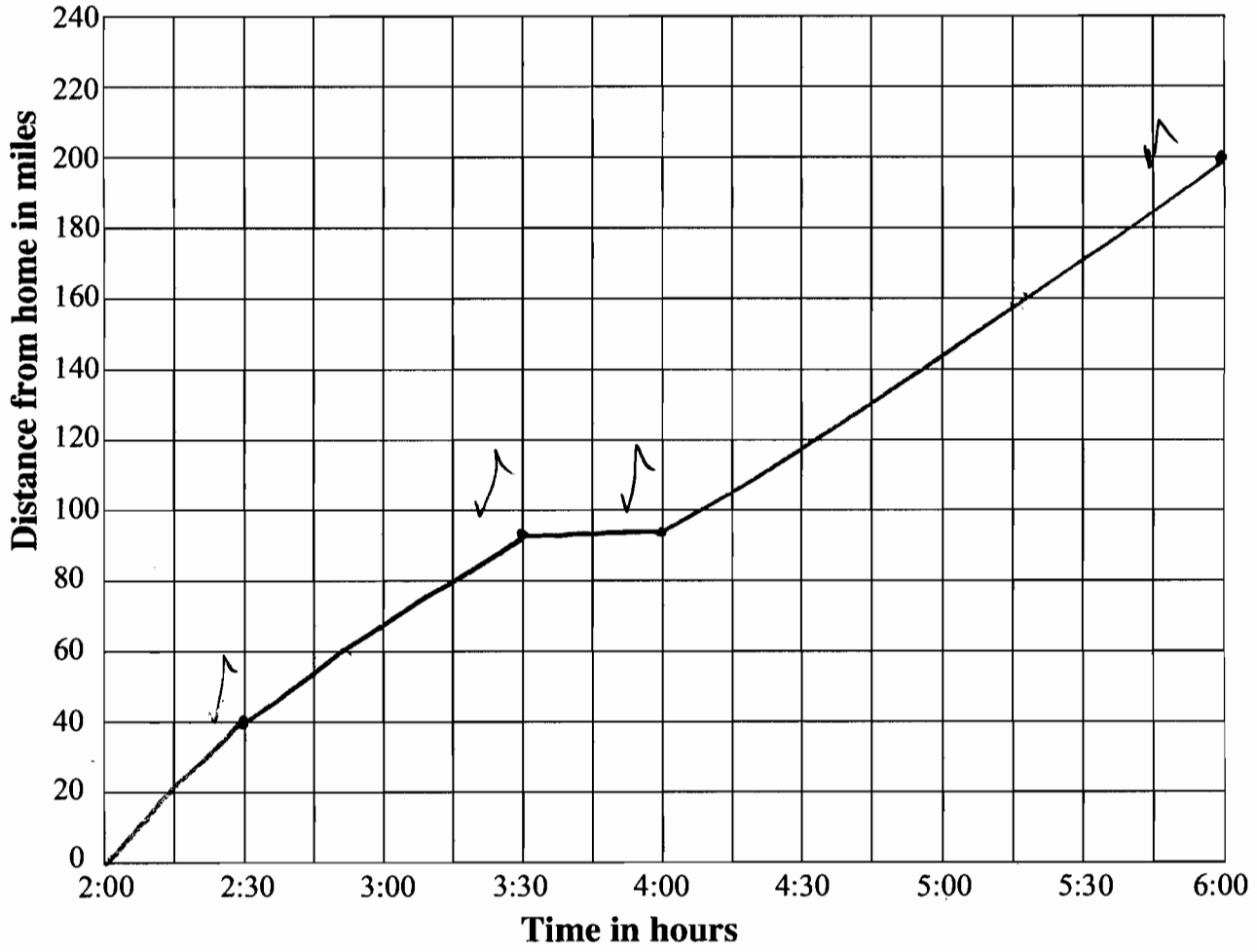
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	40	90	90	200

(1) ft

2. Draw a distance-time graph for this journey on the grid below.



2 ft

3. What is the average speed for the whole journey? about 48

Explain how you figured it out.

I added 40+50+55, and got 145. I then divided 145 by 3 and got 48.3 but rounded down to 48. ×0

4. Use your graph to find:

a. How far from home I had traveled by 5:15. about 160 miles 1 ft

b. At what time I had traveled 60 miles from home. around 2:50 1 ft

5

7

Journey

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

S6

Here is a description of a car journey.

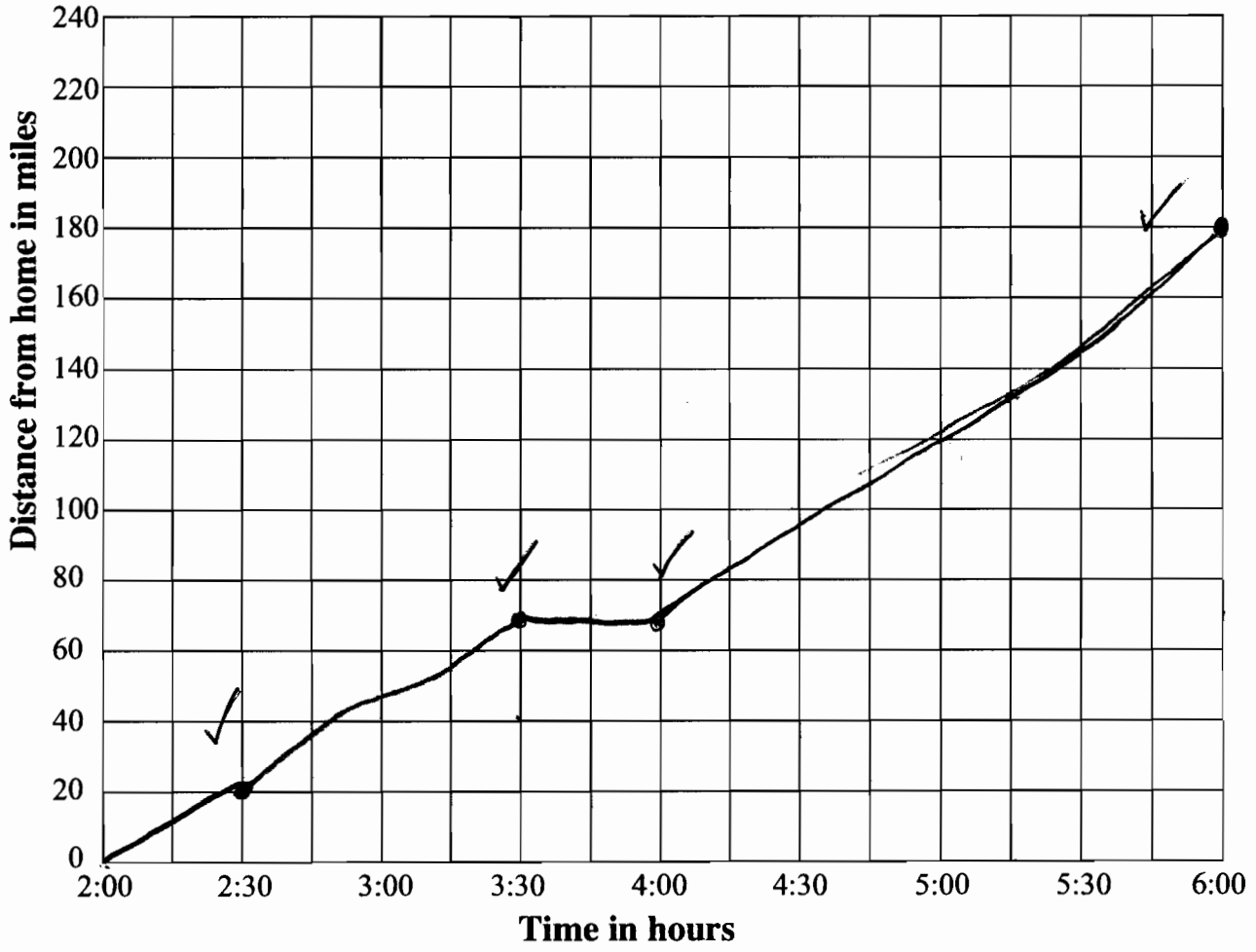
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

2

2. Draw a distance-time graph for this journey on the grid below.



2

miles : time :: 180 / 4 hrs = x / 1

3. What is the average speed for the whole journey? 45 mi/hr ✓ 1

Explain how you figured it out.

I used a ratio of 180 miles / 4 hrs = x / 1, x = 45

4. Use your graph to find:

a. How far from home I had traveled by 5:15. approx 130 ✓ miles 1

b. At what time I had traveled 60 miles from home. aprox 3:20 ✓ 1

$$4\overline{)180}\quad 45,\ 16,\ 20$$

7

Journey

S7

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

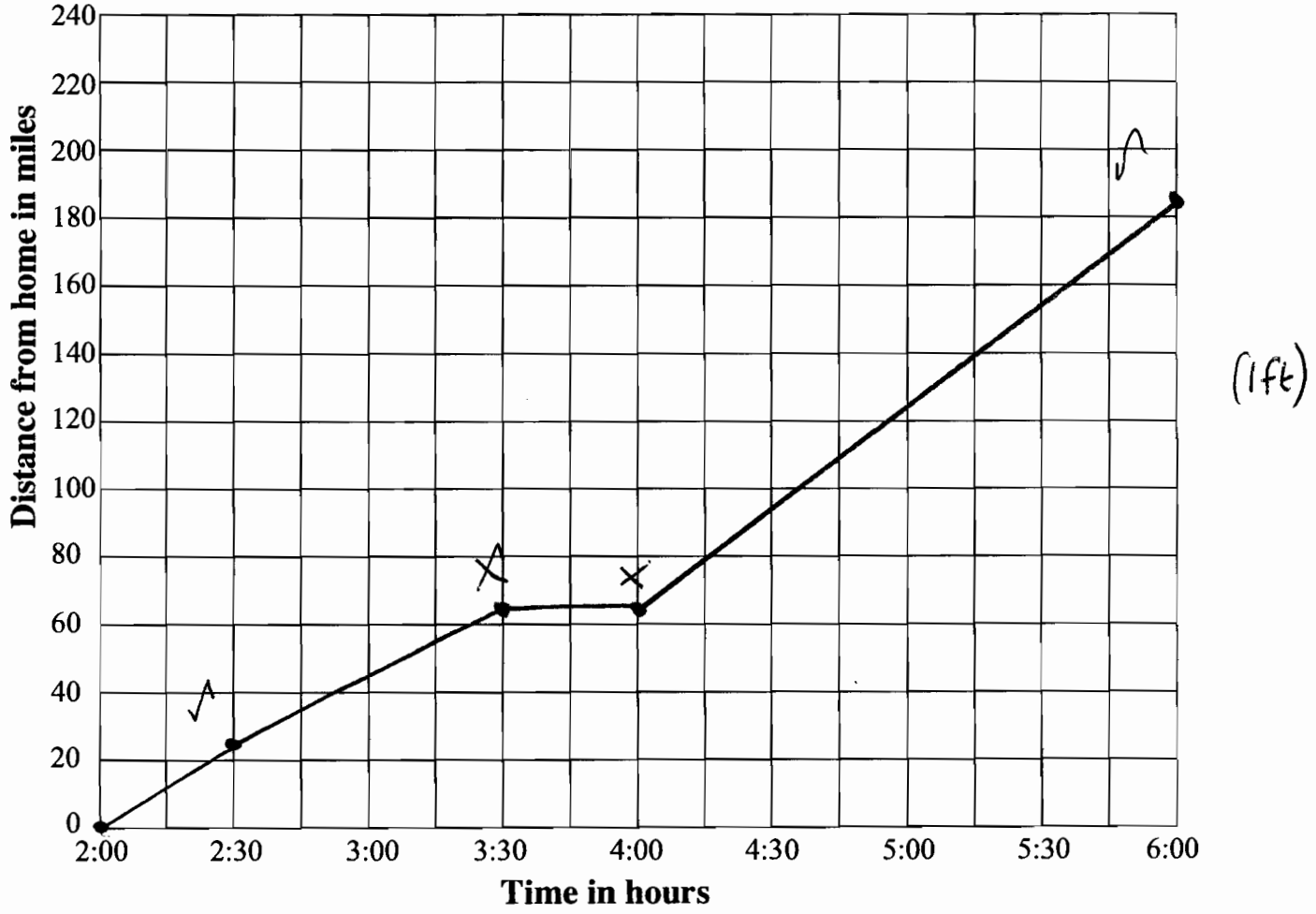
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	22.5	72.5	72.5	182.5

(1ft)

2. Draw a distance-time graph for this journey on the grid below.



(1ft)

3. What is the average speed for the whole journey? 45.625

Explain how you figured it out.

I added 22.5 (half of 45), 50, 0, and 110 0 (twice of 55). Then divided it by 4.

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 140 miles

b. At what time I had traveled 60 miles from home. 3:17:50

4

7

Journey

S8

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

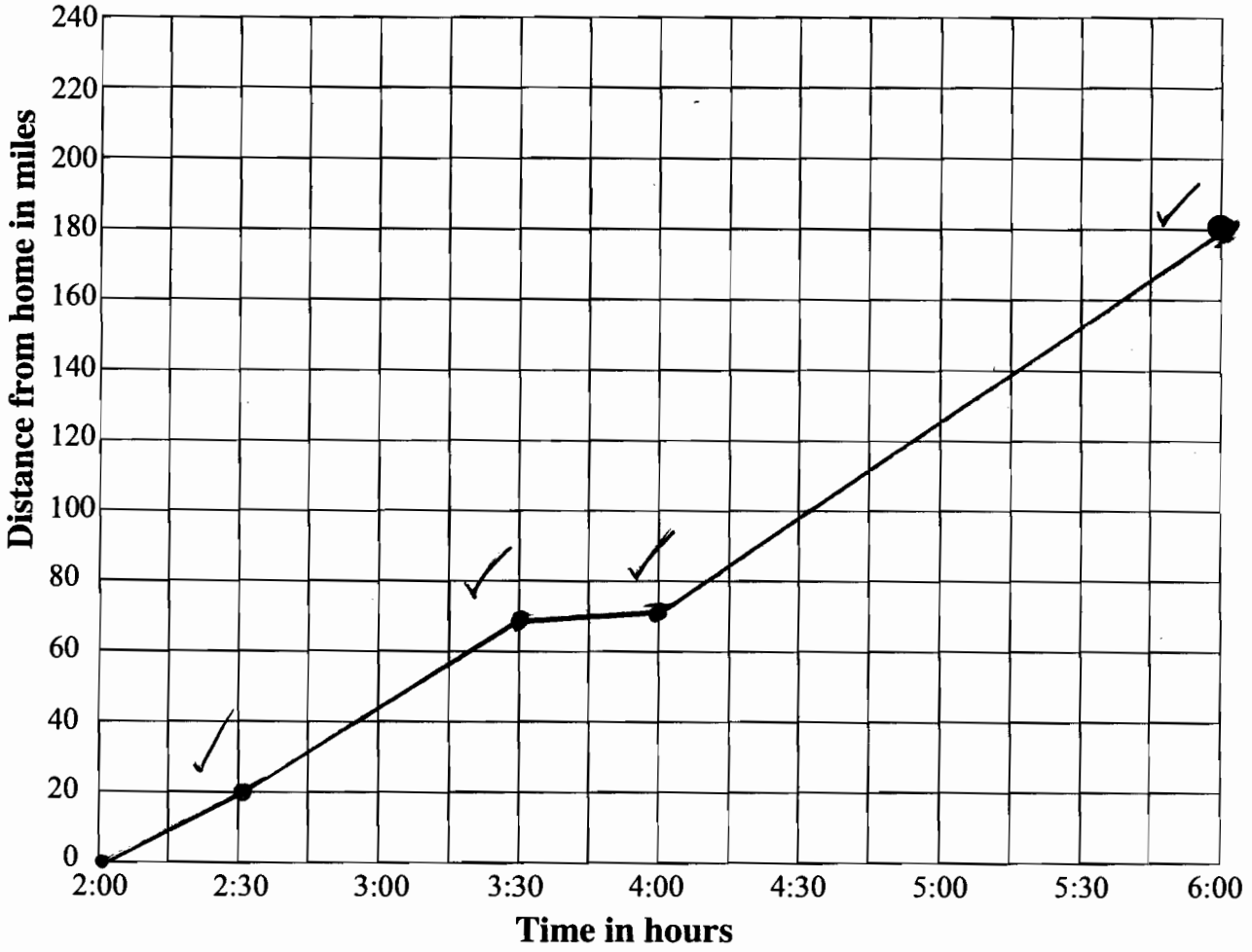
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

✓ 2

2. Draw a distance-time graph for this journey on the grid below.



2

S8

3. What is the average speed for the whole journey? 50mph

Explain how you figured it out.

he was pretty much going 50mph the whole time. x 0

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 140 ✓ 1 miles

b. At what time I had traveled 60 miles from home. 3:17 ✓ 1

6

7

Journey

S9

This problem gives you the chance to:
- draw and interpret a graph of speed, distance and time

Here is a description of a car journey.

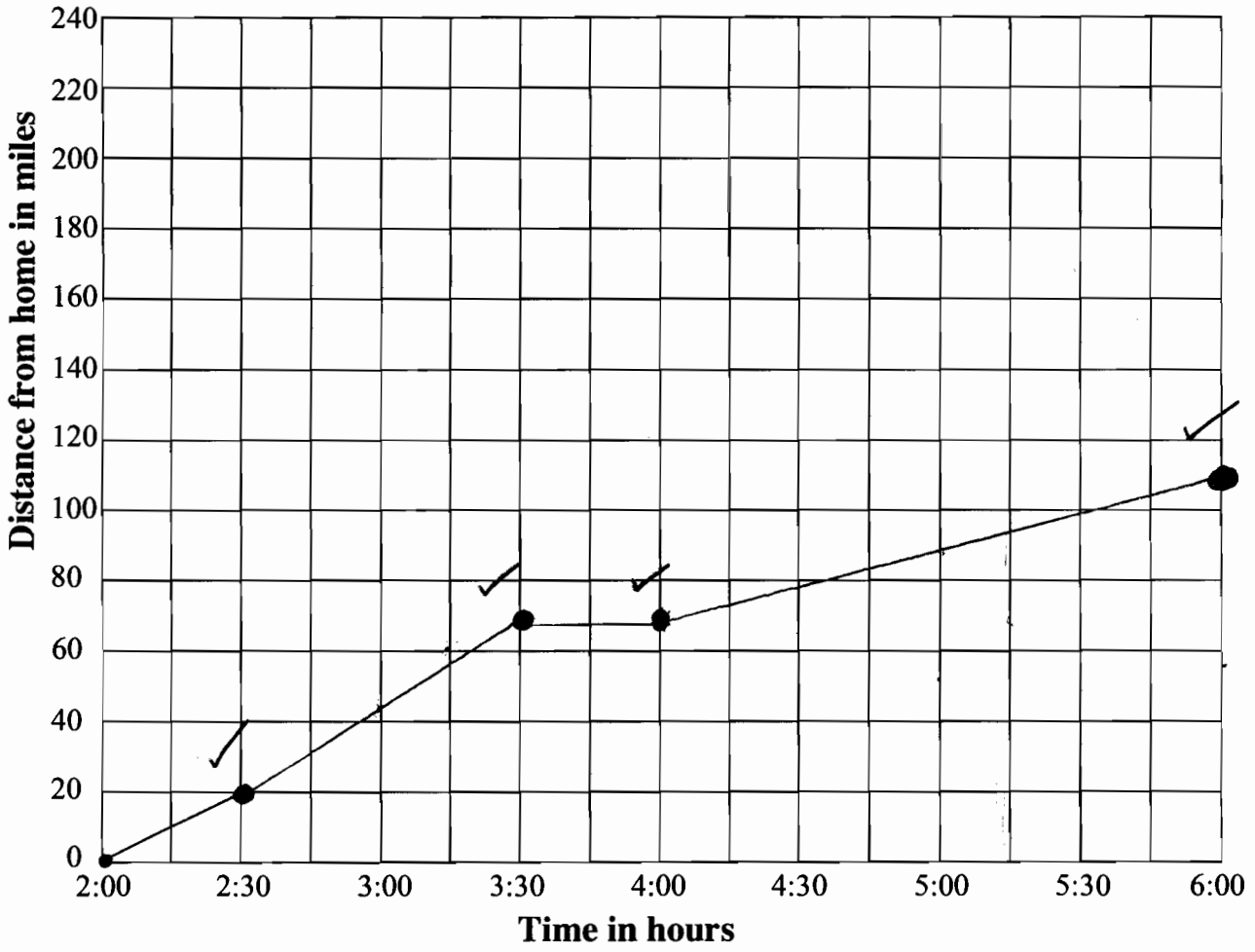
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	40 ✓	90 ✓	90 ✓	110 ✗

(1)

2. Draw a distance-time graph for this journey on the grid below.



2ft

S9

3. What is the average speed for the whole journey? 48.3

Explain how you figured it out.

I added 40+50+55=145 and divided that by 3.

X 0

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 137.75 miles X 0

b. At what time I had traveled 60 miles from home. 3:15 ✓ 1

70
55
125

4|55

4

7

Journey

This problem gives you the chance to:
• draw and interpret a graph of speed, distance and time

S10

Here is a description of a car journey.

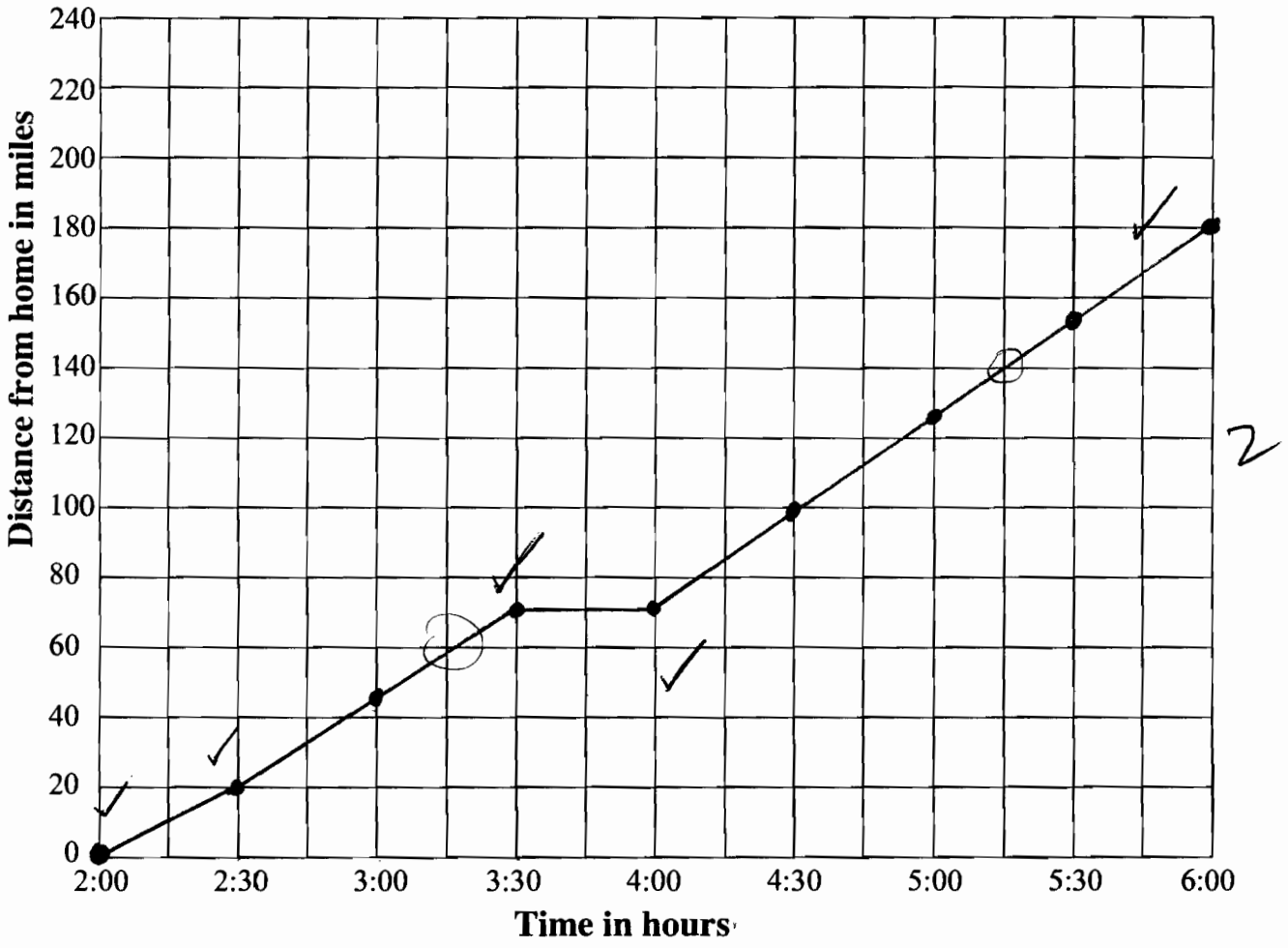
> "I left home at 2:00 hours. I traveled for half an hour at forty miles an hour, then for an hour at fifty miles an hour. I had a half hour stop for lunch, then I travelled for two hours at fifty-five miles an hour."

1. Complete this table showing the distances traveled by the end of each stage of my journey.

Time in hours	2:00	2:30	3:30	4:00	6:00
Distance from home in miles	0	20	70	70	180

20 50 0 110 ✓ 2

2. Draw a distance-time graph for this journey on the grid below.



2

S10

3. What is the average speed for the whole journey? 36.25mph

Explain how you figured it out.

I added 40+50+0+55=145÷4=36.25 x 0.

4. Use your graph to find:

a. How far from home I had traveled by 5:15. 140 ✓ 1 miles

b. At what time I had traveled 60 miles from home. 3:15 ✓ 1

(6)

7