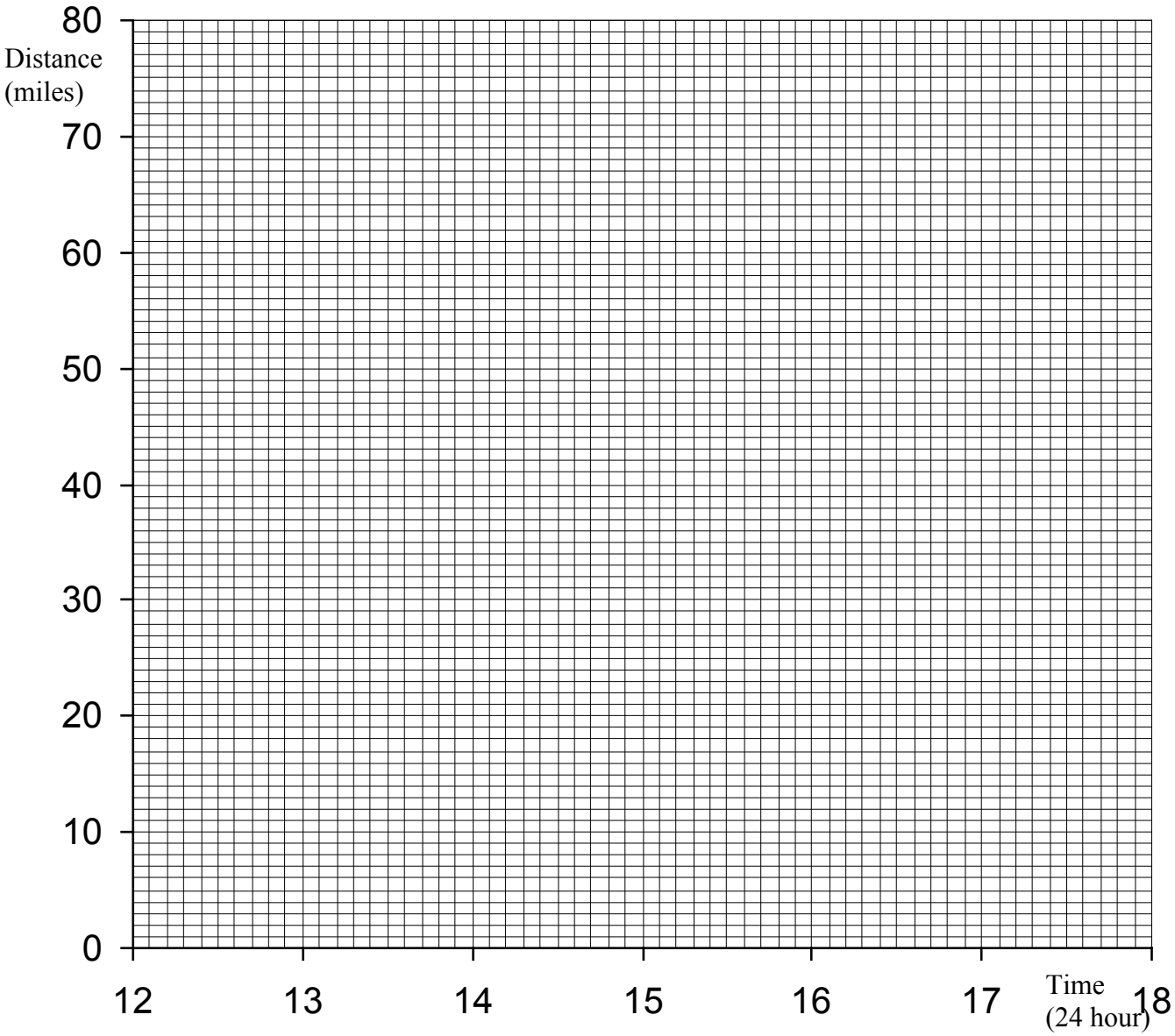
TRAVEL GRAPHS

WRITE YOUR ANSWERS ON THIS SHEET

1) Two towns, *A* and *B*, are 60 km apart. Sarah leaves town *A* at 12:00 p.m. and travels towards *B*. She travels at 20 mph for 1 hour, and then rests for $\frac{1}{2}$ hour. She then completes her journey at a constant 20 mph.

a) Complete the travel graph below to illustrate her journey.



b) What time does Sarah arrive at town *B*?

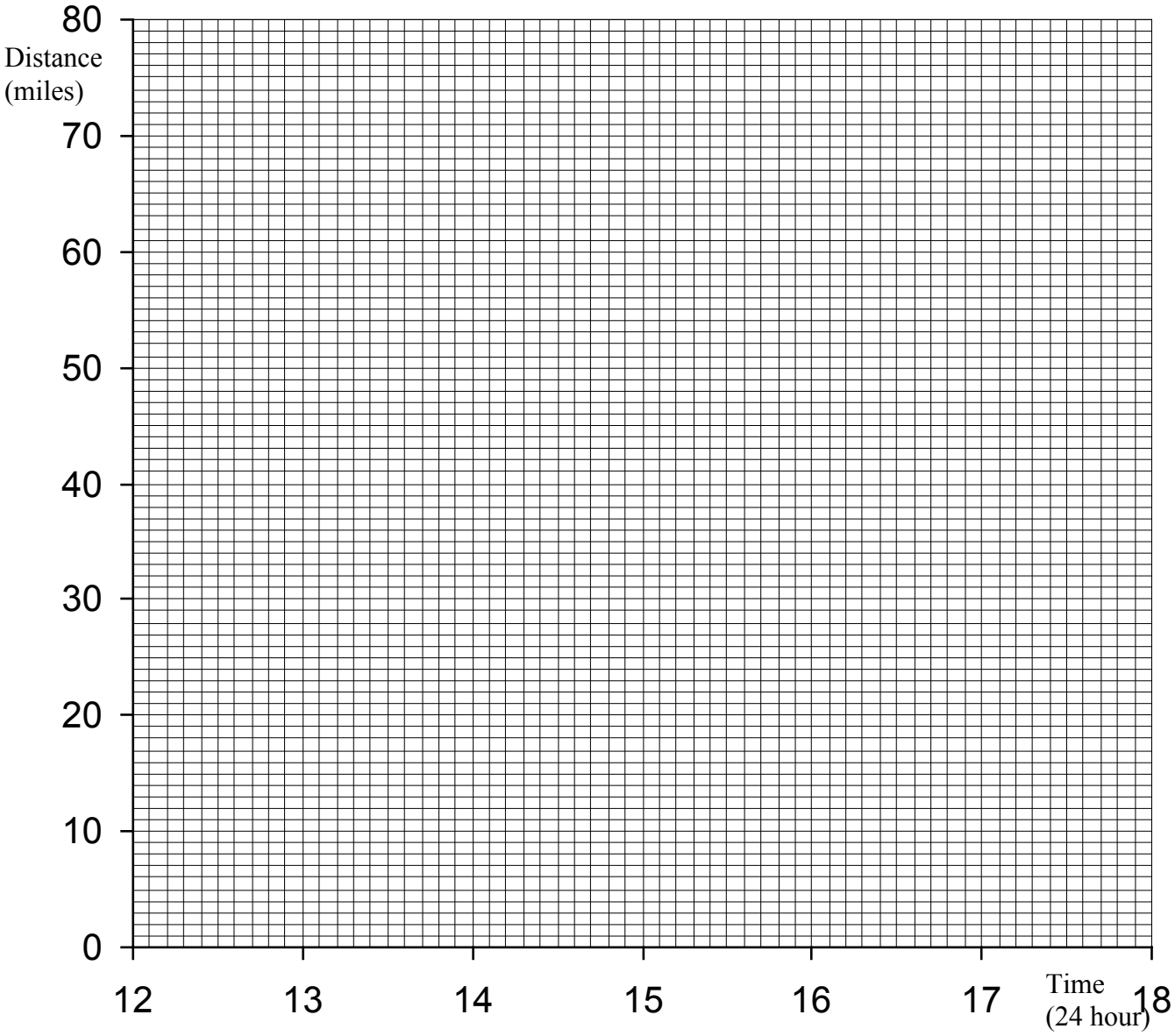
Bob leaves town *B* at 1 p.m. and travels towards town *A* at a constant 30 mph.

Draw Bob's journey on the above graph.

c) At what time did Sarah and Bob pass each other?

2) Two towns, *A* and *B*, are 80 km apart. Sally leaves town *A* at 12:00 p.m. and travels towards *B*. She travels at 20 mph for 1 hour, and then rests for $\frac{1}{2}$ hour. She then continues at 20 mph for another hour before resting again for 1 hour. She then completes her journey at a constant 20 mph.

a) Complete the travel graph below to illustrate her journey.



b) What time does Sally arrive at town *B*?

Barry leaves town *B* at 2 p.m. and travels towards town *A* at a constant 30 mph.

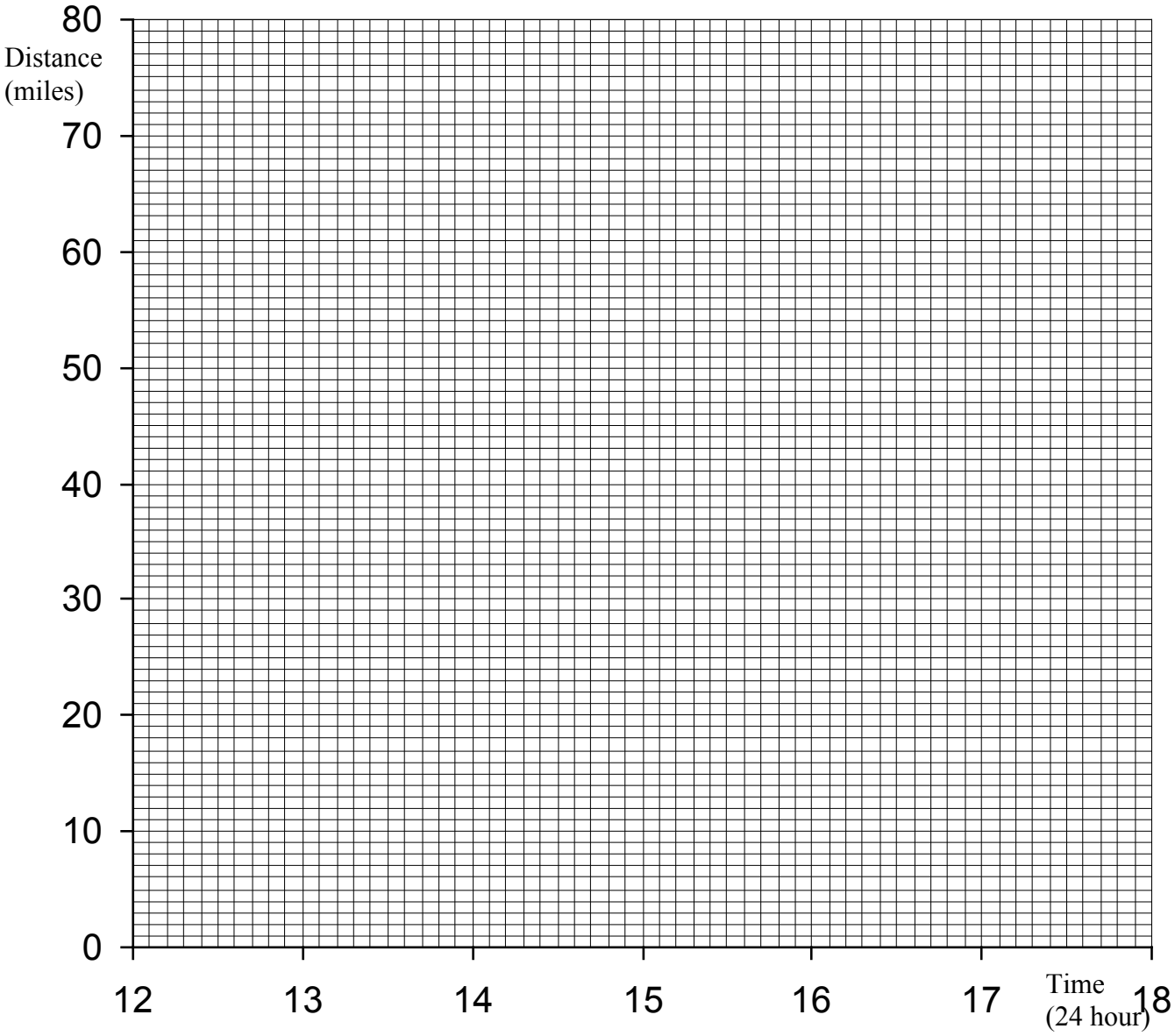
Draw Barry's journey on the above graph.

c) At what time did Barry arrive home?

d) At what time did Sally and Barry pass each other?

3) Two towns, *A* and *B*, are 50 km apart. Samantha leaves town *A* at 12:00 p.m. and travels towards *B*. She travels at 10 mph for 2 hours, and then rests for $\frac{1}{2}$ hour. She then continues at 20 mph for another hour before resting again for 1 hour. She then takes exactly 1 hour to complete her journey.

a) Complete the travel graph below to illustrate her journey.



b) What time does Samantha arrive at town *B*?

c) How far does Samantha travel in the last hour of her journey?

Billy leaves town *B* at 2 p.m. and travels towards town *A* at a constant 20 mph.

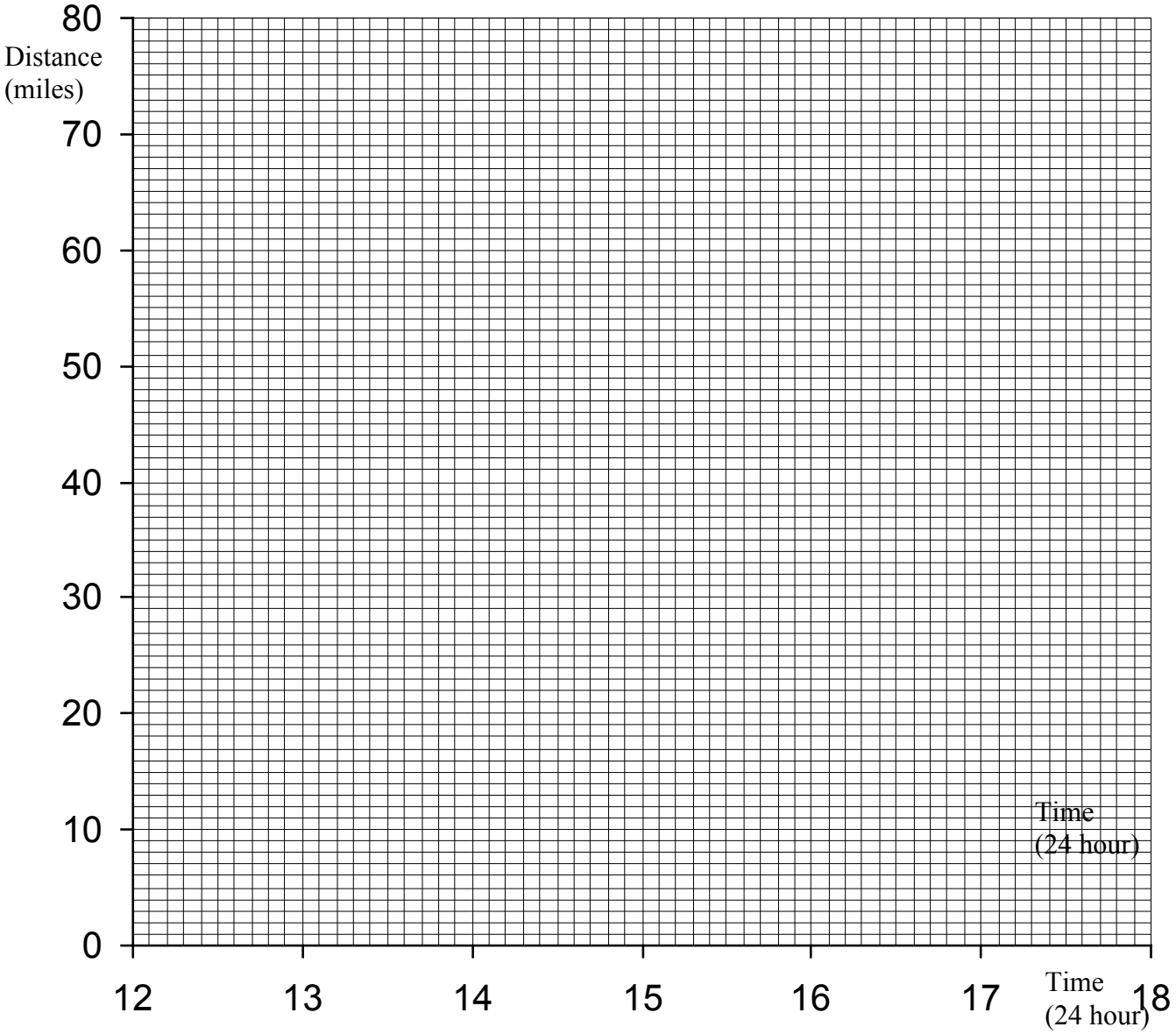
Draw Billy's journey on the above graph.

d) At what time did Billy arrive home?

e) At what time did Samantha and Billy pass each other?

4) Two towns, *A* and *B*, are 60 km apart. Susan leaves town *A* at 12:00 p.m. and travels towards *B*. She travels at 15 mph for 2 hours, and then rests for $1\frac{1}{2}$ hours. She then continues at 20 mph for another hour before resting again for 1 hour. She then takes exactly $\frac{1}{2}$ hour to complete her journey.

a) Complete the travel graph below to illustrate her journey.



b) What time does Susan arrive at town *B*?

c) How far does Susan travel in the last $\frac{1}{2}$ hour of her journey?

Ben leaves town *B* at 3 p.m. and travels towards town *A* at a constant 30 mph.

Draw Ben's journey on the above graph.

d) At what time did Ben arrive home?

e) At what time did Susan and Ben pass each other?

ANSWERS.

1) b) 15:30, c) 14:00.
2) b) 17:30, c) about 16:40, d) about 15:21.
3) b) 17:30, c) 10 miles, d) 16:30, e) 15:00.
4) b) 18:00, c) 10 km, d) 17:00, e) about 15:45.