**Problem solving and reasoning questions**

True or false?

* 13:40 is twenty to two in the afternoon.
* Midnight is 00:00
* Midday is 12:00 on the 24-hour clock
* 19:15 is quarter past 7 in the morning.
* 1 hour after 15:00 is six o’clock pm.

Calculate how long it is between…

* 13:40 and five to 5 in the afternoon
* Quarter to midday and 17:23
* Five past midnight and ten to midday

If each bus is 40 minutes late, write its new arrival time.

(i) No. 31 bus due at 12:55

(ii) No. 22 bus due at 13:04

(iii) No. 15 bus due at 14:44

The number 4A bus arrived 27 minutes late at 00:14. What time was it due?

**Problem solving and reasoning questions**

True or false?

* 13:40 is twenty to two in the afternoon. True.
* Midnight is 00:00 True.
* Midday is 12:00 on the 24-hour clock True.
* 19:15 is quarter past 7 in the morning. False - it is in the evening.
* 1 hour after 15:00 is six o’clock pm. False - it is four o’clock pm.

Calculate how long it is between…

* 13:40 and five to 5 in the afternoon 3 hours 15 minutes.
* Quarter to midday and 17:23 5 hours and 38 minutes.
* Five past midnight and ten to midday 11 hours and 45 minutes.

An ENL jotting can help with these calculations, which are probably best-solved by **counting up** from the earlier to the later time.

If each bus is 40 minutes late, write its new arrival time.

(i) No. 31 bus due at 12:55 13:35

(ii) No. 22 bus due at 13:04 13:44

(iii) No. 15 bus due at 14:44 15:24

Answers of 12:95 and 14:84 for (i) and (iii) respectively suggest child had added the minutes but forgotten that there are only 60mins in an hour.

The number 4A bus arrived 27 minutes late at 00:14. What time was it due? 23:47.