

The Problem:

Albert and Bernard just became friends with Cheryl, and they want to know when her birthday is. Cheryl gives them a list of 10 possible dates.

May 15, May 16, May 19
June 17, June 18
July 14, July 16
August 14, August 15, August 17

Cheryl then tells Albert the month but not the day and tells Bernard the day but not the month.

Then Albert said: I don't know when Cheryl's birthday is, but I know that Bernard does not know either.

Bernard: At first I don't know when Cheryl's birthday is, but I know now.

Albert: Then I also know when Cheryl's birthday is.

When is Cheryl's birthday?

Hint: According to Albert's first statement, if Bernard doesn't know when Cheryl's birthday is, what days can't Cheryl have given Bernard? Are there any days in the list that if Bernard had, he would immediately know when Cheryl's birthday is?