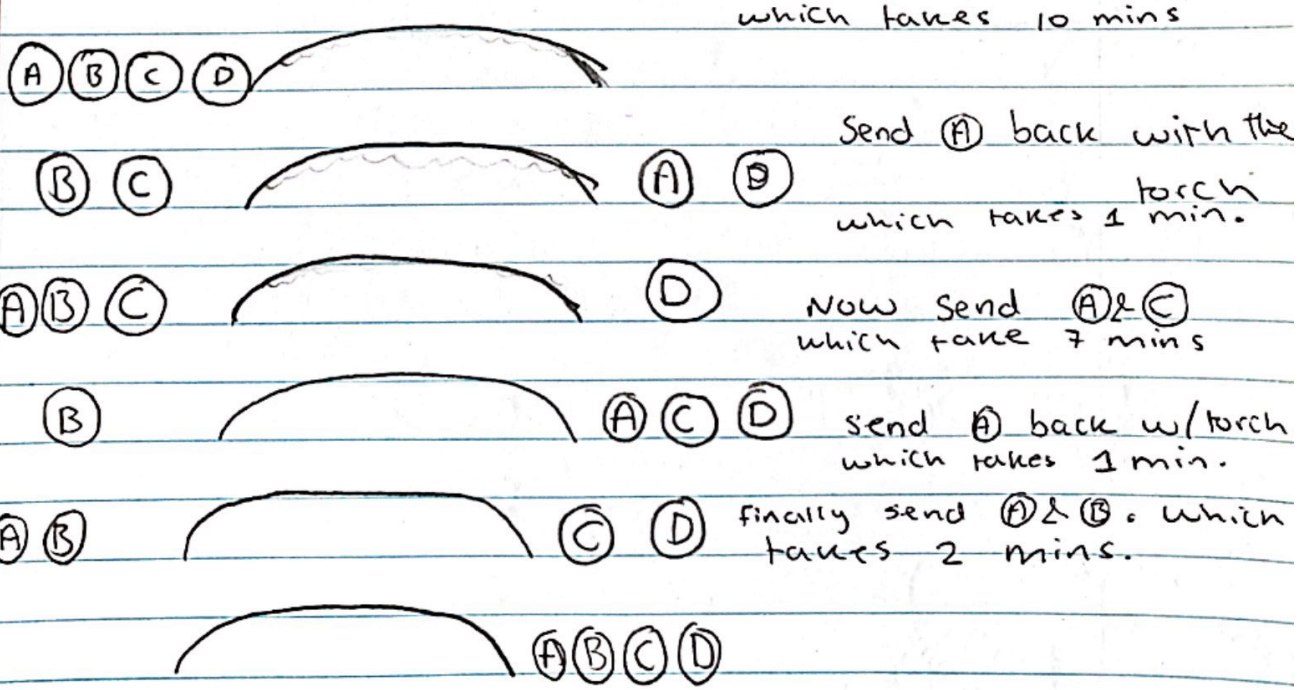
Mohsin

Crossing the Bridge

- Rachel :- takes 1 minute to cross
  Let Rachel be 'A'
- Ben :- takes 2 minutes to cross
  Let Ben be 'B'
- George :- takes 7 minutes to cross
  Let George be 'C'
- Yvonne :- takes 10 minutes to cross
  Let Yvonne be 'D'

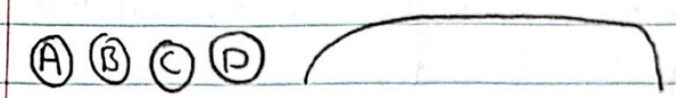
We are told that the second fastest way of getting the friends across is 21 minutes. So how was this done?



Adding up all the times we get 10+1+7+1+2 = 21 minutes

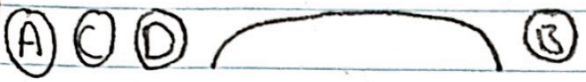
Scanned with CamScanner

We are then told that the fastest time taken is 17 minutes. How was this done?



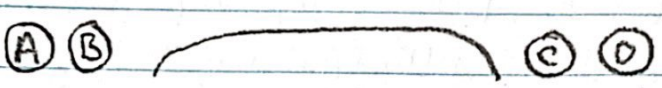
Send A & B together. which takes 2 mins.

Now send A back w/ thorch. which takes 1 min.



Now send C & D. which takes 10 mins.

Send B back w/ torch. which takes 2 mins.



Finally send A & B. which takes 2 mins.

Adding up all the times we get $2+1+10+2+2 = 17$ minutes

Note: You want George and Yvonne to cross the bridge without either of them returning otherwise that would automatically exceed 17 minutes.

Scanned with CamScanner