

## THE BRIDGE PROBLEM

There are 4 people who want to cross a bridge. They all begin on the same side. It is night and there is only one flashlight. A maximum of two people can cross at the same time and any party that crosses, either 1 or 2 people, must have the flashlight with them. The flashlight must be walked back and forth; it cannot be thrown or shone across the bridge. No piggyback rides can be given either.

Each person walks at a different speed. When a group of 2 walk together, they walk at the rate of the slower person's pace. Below is the rate of the 4 people.

- Person 1: takes 1 minute to cross the bridge
- Person 2: takes 2 minutes to cross the bridge
- Person 3: takes 5 minutes to cross the bridge
- Person 4: takes 10 minutes to cross the bridge

Your Assignment: figure out how all 4 people get across the bridge under these conditions in a total time of NO LONGER than 17 minutes.

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