

NewWorld puzzle

Q:

There are four people who want to cross a rickety bridge; they all begin on the same side. You have 17 minutes to get them all across to the other side. It is night, and they have one flashlight. A maximum of two people can cross the bridge at one time. Any party that crosses, either one or two people, must have the flashlight with them. The flashlight must be walked back and forth; it cannot be thrown, for example. Person 1 takes 1 minute to cross the bridge, person 2 takes 2 minutes, person 3 takes 5 minutes, and person 4 takes 10 minutes. A pair must walk together at the rate of the slower person's pace. (Note: According to a rumor on the Internet, interviewers at a well-known software company located near Seattle have given this problem to interviewees.)

A:

(10) (5) (2) (1 )	[	BRIDGE]		
(10) (5 )	[	BRIDGE	]	( 2) (1)	= 2 minutes
(10) (5) (1 )	[	BRIDGE	]	( 2)	= 3 minutes
(1 )	[	BRIDGE	]	( 2) (10) (5)	= 13 minutes
(1) (2 )	[	BRIDGE	]	(10) (5)	= 15 minutes
	[	BRIDGE	]	(10) (5) (1) (2)	= 17 minutes

Persons 1 and 2 crosses the bridge together to the other side with the flashlight. Person 1 then crosses back with the flashlight, leaving Person 2. Then, Persons 3 and 4 takes the flashlight from Person 1 then crosses the bridge together to the other side, leaving Person 1. Person 2, who was on the other side, takes back the flashlight from Persons 3 and 4 then crosses back, leaving Persons 3 and 4. Finally, Persons 1 and 2 crosses together again to the other side of the bridge.