

# The Bridge Problem

Get away from Zombies!



Four friends are out walking when they come across a group of zombies.



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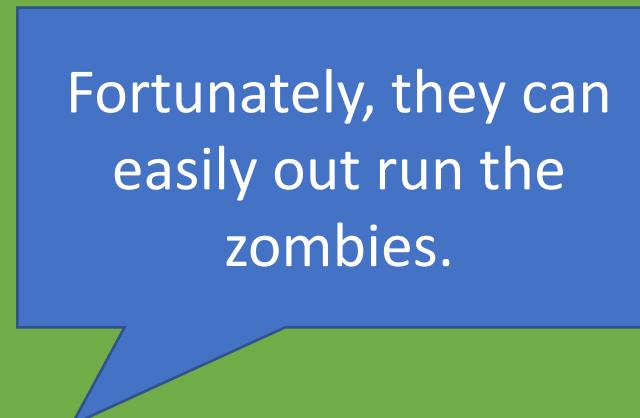
Fortunately, they can easily out run the zombies.



Four friends are out walking when they come across a group of zombies.



Unfortunately, they come to a cliff with a deep ravine far below.



Fortunately, they can easily out run the zombies.

Fortunately, they  
find a rope bridge.



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Unfortunately, the  
rope bridge can  
only carry 2 of  
them at a time.

Fortunately, they find a rope bridge.



Unfortunately, the rope bridge can only carry 2 of them at a time.

Also unfortunately, they only have one flashlight and it is impossible to cross the bridge in the dark.



Further, each person takes a different number of minutes to cross the bridge.

The times are: 1 minute, 2 minutes, 5 minutes and 10 minutes.



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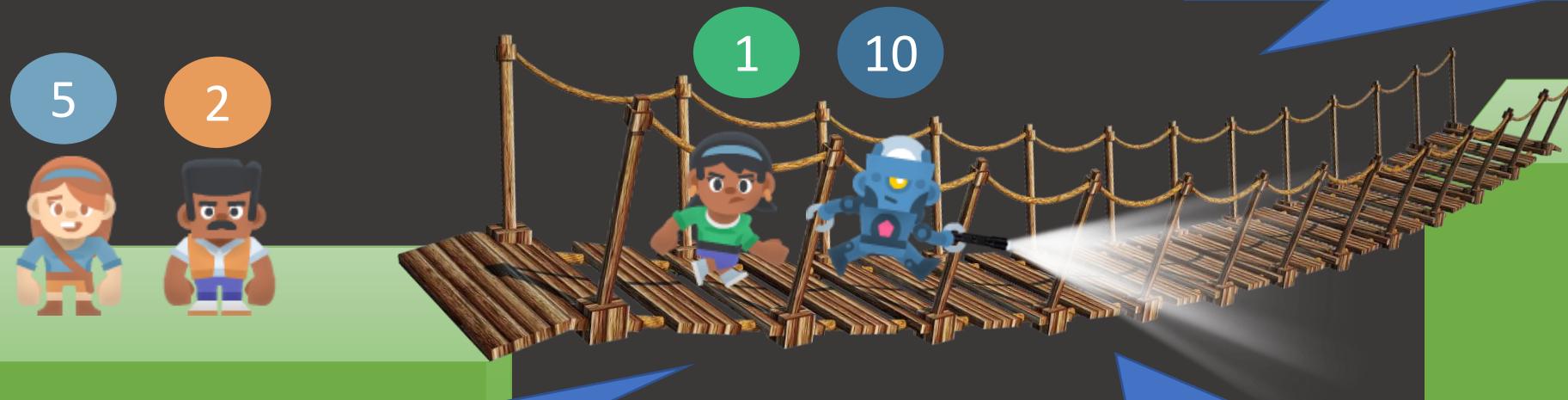


When two people cross  
the bridge together,  
they go at the pace of  
the slower person.



When two people cross the bridge together, they go at the pace of the slower person.

In this case, it takes 10 minutes to cross.



When two people cross the bridge together, they go at the pace of the slower person.

In this case, it takes 10 minutes to cross.

The flashlight must be carried back across the bridge each time. It is too far to throw it.



The Zombies are  
17 minutes  
away.



Get everyone across  
the bridge safely so  
that you can cut the  
ropes and escape the  
zombies!