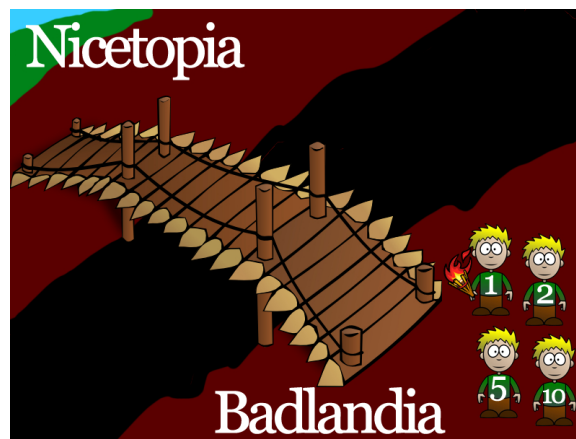# Math Abridged
## An Optimal Optimization Puzzle

Trapped in the frightning country of **Badlandia**, your brave group of four adventurers has almost escaped to the lush hills of **Nicetopia**. All that remains is one dark, rickity bridge...



As you plan your escape, the earth begins to tremble. An **earthquake** is coming, and you only have minutes to spare before the bridge **collapses**!

- Each person crosses the bridge at different speeds: **1 minute, 2 minutes, 5 minutes, or 10 minutes**.

- You have one torch, which only has enough light for **at most two people crossing the bridge at a time**.

- If two people cross the bridge at the same time, the both move at the same speed as the **slower** adventurer, so they can share the torch.

You don't know how much time you have - can you get your group across the bridge in the fastest time possible?!