

Question 1:

You have two lengths of string and a book of matches. If you touch the flame to the end of the longer string, it will burn for exactly 10 minutes. Similarly, the shorter string will burn for exactly 1 minute. How do you measure 5 minutes 30 seconds using the matches and strings?

Question 2:

I have cities, but no houses live there. I have mountains, but no trees grow there. I have water, but no fish swim there. I have roads, but no cars drive there. What am I?

Question 3:

A two-digit number is equal to four times the sum of its digits. If you reverse its digits, the new number is 27 more than the original. What is the number?

Solutions:

1. Light the 10 minute string at both ends. The flames will die in 5 minutes. When this happens, light both ends of the 1 minute string. This will burn for 30 seconds. Thus, the total time elapsed is 5 minutes 30 seconds.
2. A map.
3. 36  
Reversed: 63. Four times  $(6+3) = 36$   
and  $63 - 36 = 27$