

The hobbits and orcs problem

Literature



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Problem of orcs and the hobbits Answer The three vicious Orcs and the three gentle Hobbits who need to cross the river on a single boat will be able to so in five trips assuming that the Orcs would not gobble up Hobbits when they are alone and equal in number.

Answer 2

It was relatively easy.

Answer 3

Steps followed in solving the problems are as below:

First trip

1. First time the boat would take 2 Orcs to the other side of riverbank thus leaving 1 Orc and 3 Hobbits in the bank.
2. 1 Orc would be dropped on the bank and the other Orc would bring the boat to other bank.

Second trip

3. The boat would now take a Hobbit and an Orc to the other end leaving 1 Orc and 2 hobbits on the bank (1st bank).
4. The boat would drop off Hobbit on the bank (2nd bank)and take back the Orc to the 1st bank for next trip. Thus having 1 Orc and 1 Hobbit on the bank (2nd bank).

Third trip

5. The boat again would make trip with an Orc and a Hobbit to the 2nd bank thereby now leaving 1 Orc and 1 Hobbit on the 1st bank.
6. After dropping the Hobbit, the boat would take the Orc to the 1st bank. The other 2nd bank would now have 1 Orc and 2 Hobbits.

Fourth trip

7. The boat would again make trip with an Orc and a Hobbit to the 2nd bank
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thereby now leaving only 1 Orc on the 1st bank

8. After dropping the Hobbit, the boat would take the Orc to the 1st bank.

The other bank would now have 1 Orc and 3 Hobbits.

Fifth trip

9. The boat would make last trip with two Orcs and cross the river to the other end.

Answer 4

General Rules

1. There should be equal number of Orcs and Hobbits.
2. Boat should be rowed by the vicious Orc only.
3. First trip should always be with 2 Orcs so that larger gap between the two could be maintained on one 1 bank.
4. The subsequent trips must ensure that number of hobbits remain more than or equal to the Orcs so that they are not eaten away!

Answer 5

No the steps once solved made it easy to move the Orcs and the Hobbits from one bank to another.

Answer 6

The rules would work with the Hobbits on the other side but not when Orcs already exist on the other bank.