## A pair of logic puzzles

Card Puzzle I have a set of cards. Each card has a number on one side and a letter on the other.

Here is a rule:

If a card has a ' $D$ ' on one side, then it has a ' 3 ' on the other side.
What is the smallest number of cards you have to turn over given the following cards to determine whether the rule holds or not?

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Bar Puzzle You are a bouncer in a bar and you must enforce the following rule:
If a bar patron is drinking beer she or he must be 21 or over.
Of the four people at the bar drinking beverages, whose IDs or drinks at minimum do you have to check?

1. A person drinking beer.
2. A person drinking coke.
3. A person who you know is over 21.
4. A person who is you know is under 21.
