

Pebble game

An urn contains a finite number of pebbles. Each pebble is either white or black. At each step of the game, take two pebbles out of the urn. If their colors are different, put a white pebble back. If colors are equal, put a black pebble back (You may have to blacken a white one).

- (a) Show that the game must finish.
- (b) What can you say about the color of the last pebble in the urn?