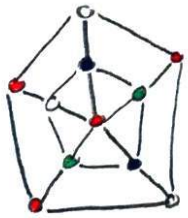
8. BOJANJA GRAFOVA

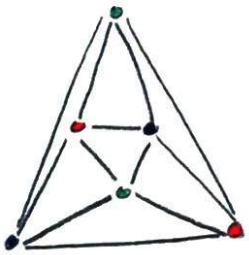
8.12



$\chi = ?$

$\chi = 4$

8.13



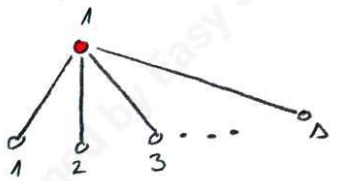
$\chi = ?$

$\chi = 3$

8.14 $\chi(Q_k) = ?$ $\quad \chi(Q_k) = 2 \;, \forall k \;, k \in \mathbb{N}$

$\Rightarrow$ Qu je bipartitan

8.15 $\chi(K_{1,n}) = ?$



$\chi(K_{1,n}) = 2$

8.16 3-regularan
$n > 4$
$c = 3$

$\chi(G) = ?$

mpr. $n = 6$, $c = 3$, 3-regularan

$\chi = 3$

općenito: $c = 3 \rightarrow$ nije bipartitan $\Rightarrow \chi(G) > 2$

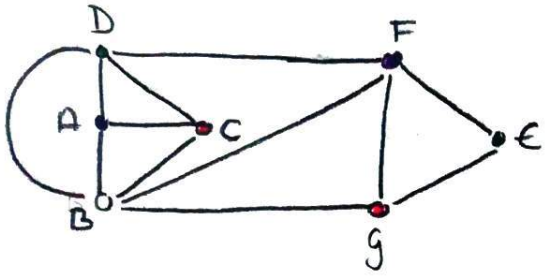
3-regularan (kubični) $\Rightarrow \chi(G) \leq 3$

$3 \geq \chi > 2 \longrightarrow \chi(G) = 3$

8.17 Turdują me mjedi

(vidi: 4-regularni oktaedar iz 8.13)

8.18



$\chi = 4$

8.19 ???

8.20 Oktaedar

$\chi'(G) = ?$

→ 4-regularan

$\chi'(4) \geq \Delta$ ili $\chi'(G) \geq \Delta + 1$

$\chi'(G) = 4$

8.21 Dodekaedar

$\chi'(G) = ?$

→ 3-regularan

$\chi'(G) = 3$

8.22 Tietzeov graf

$\chi'(G) = ?$

$\chi(G) = ?$

→ 3-regularan

$\chi'(G) = 4$

$\chi(G) = 3$ => kako se vidi bojanjem vrhova (dosadašnjim)

8.23 Heawoodov graf

$\chi(G) = ?$

$\chi'(G) = ?$

→ 3-regularan

└> kubični bipartitni

$\chi(G) = 2$

$\chi'(G) = 3$

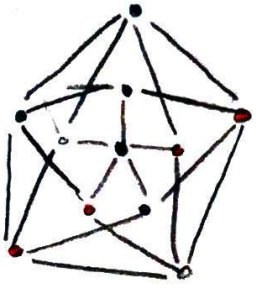
8.24 Grötzschov graf

$\chi(g) = ?$

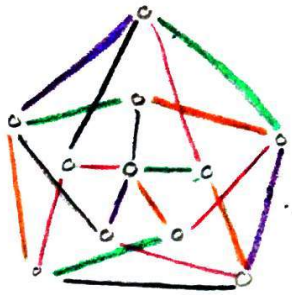
$\chi'(g) = ?$

NIJE REGULARAN!

Crtaj!



$\chi(g) = 4$



$\chi'(g) = 5$

8.25 ???

8.26 Protuprimjer: Tietzeov graf

(vidi 8.22)