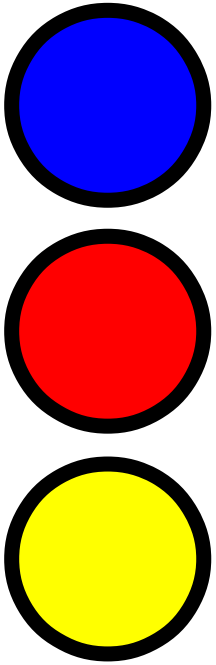
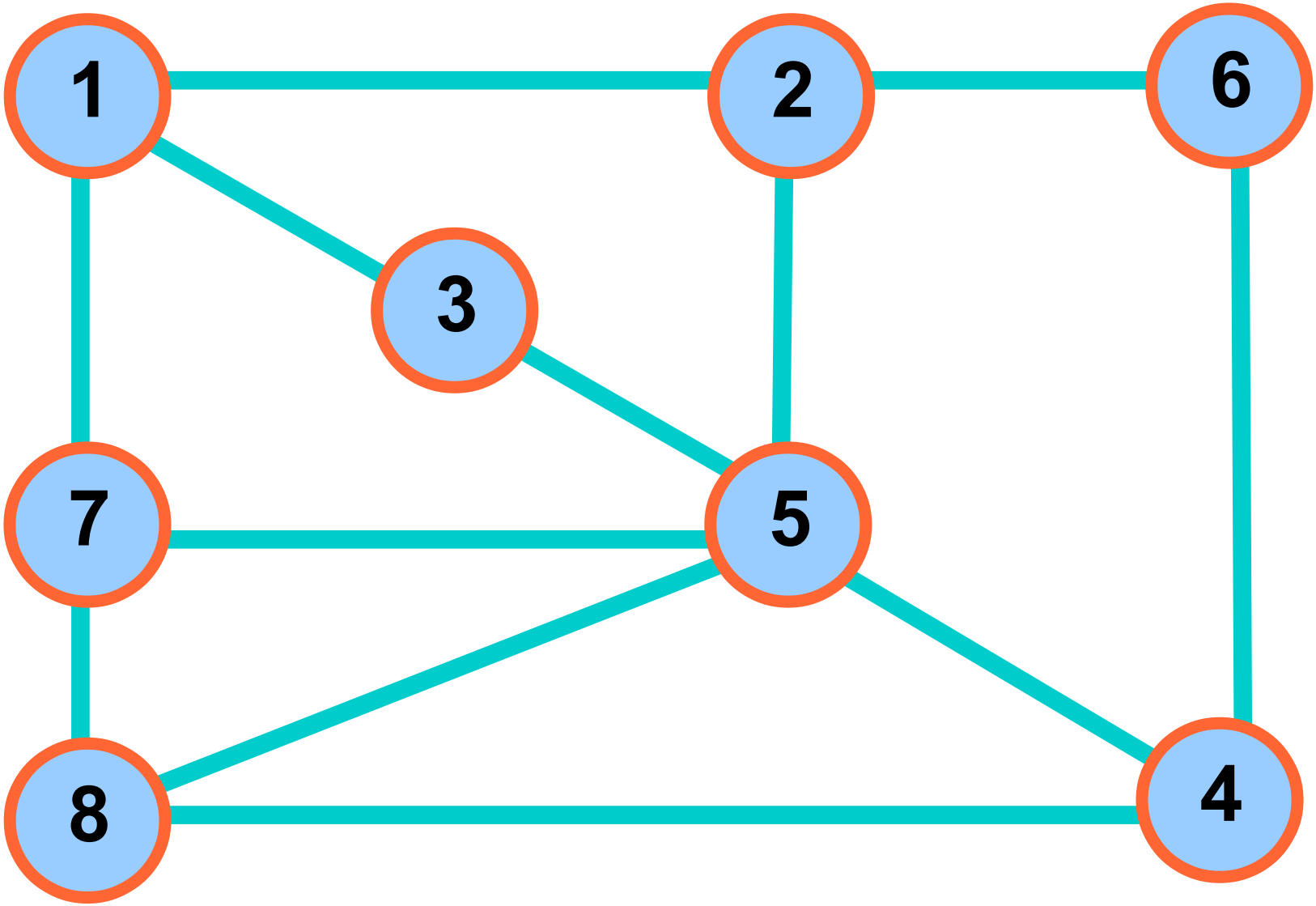
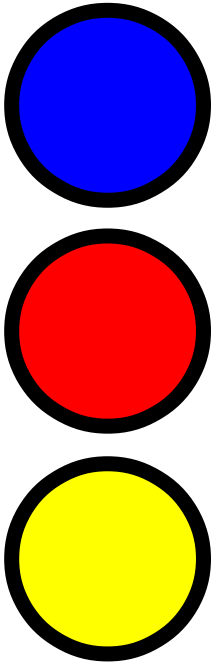
3 coloration par backtracking





Principe du Backtracking



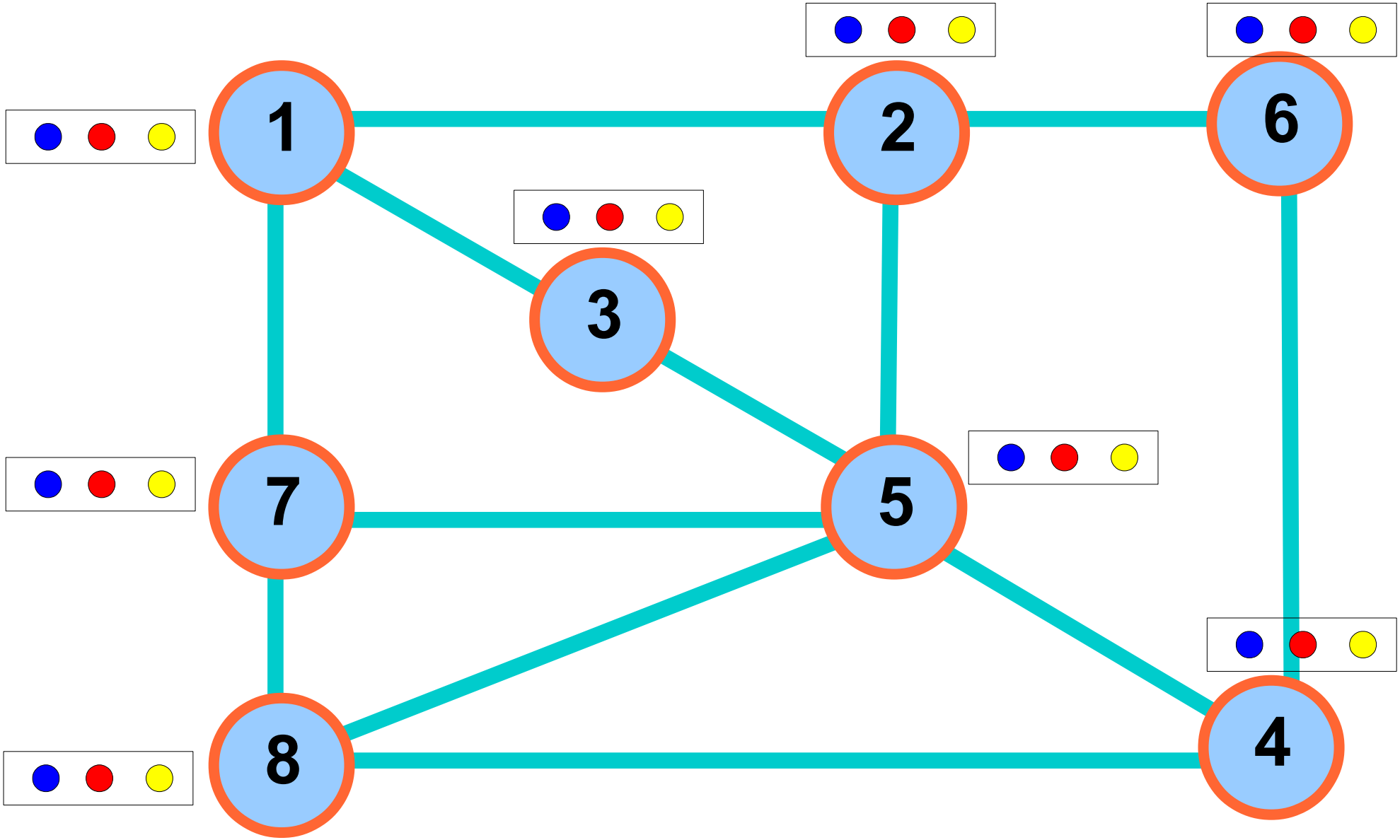
On impose au sommet 1 d'être bleu.

Pour tous les autres sommets :

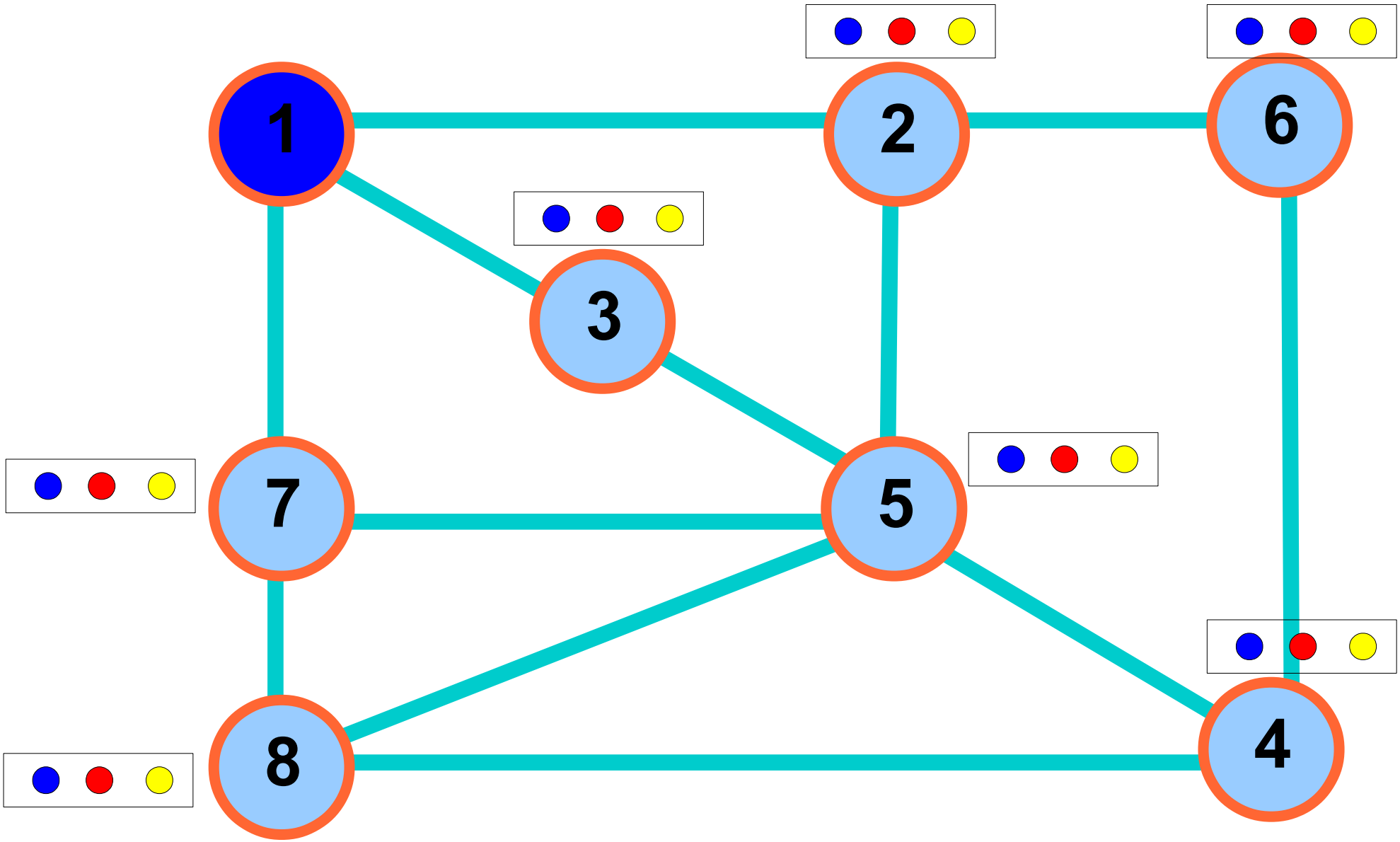
On teste une à une toutes les couleurs possibles. Si on a tout essayé sans succès, on revient au sommet précédent (backtracking) pour essayer les couleurs restantes

3 coloration par backtracking

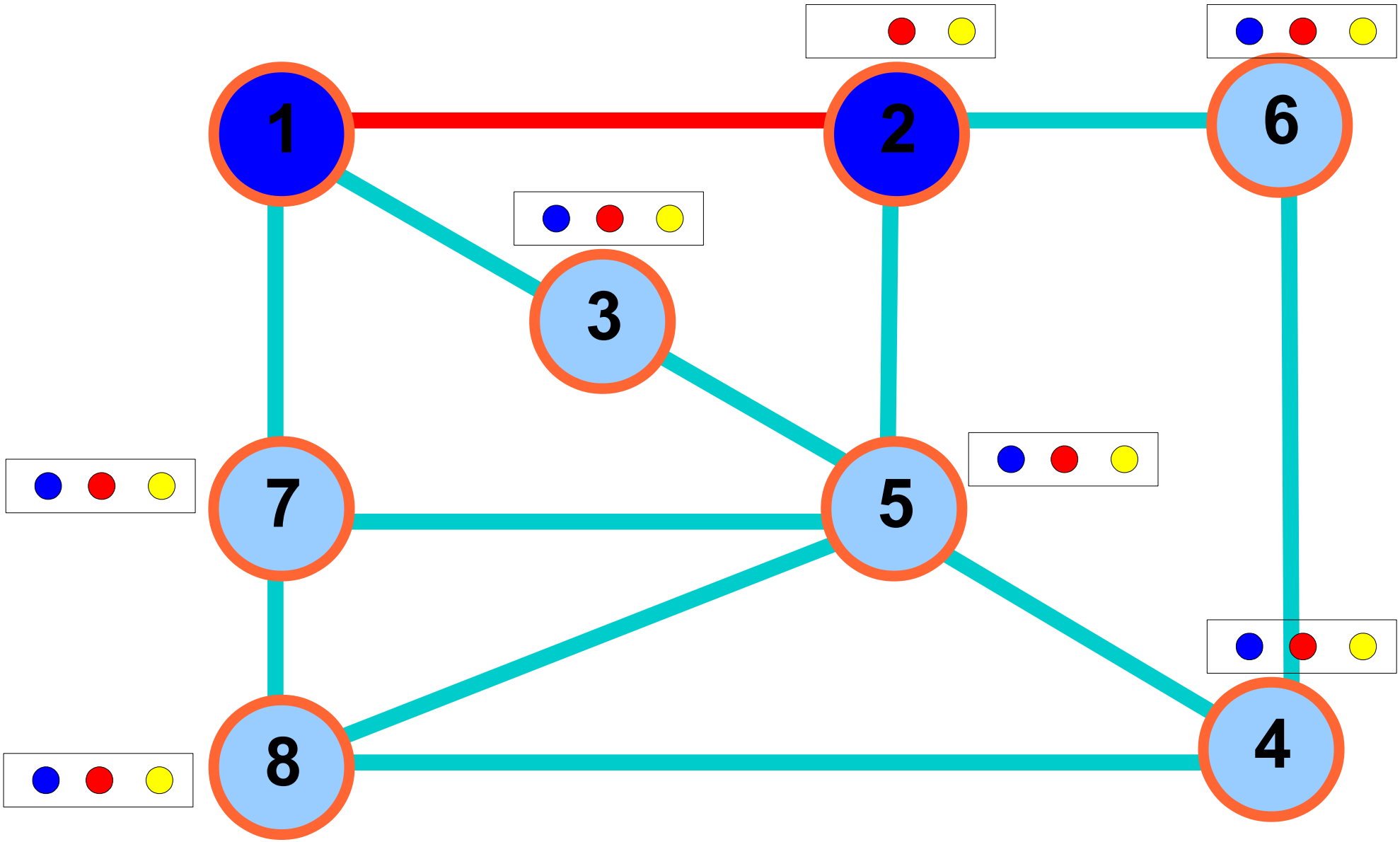
En petit, l'ensemble des couleurs encore possibles pour chaque sommet.



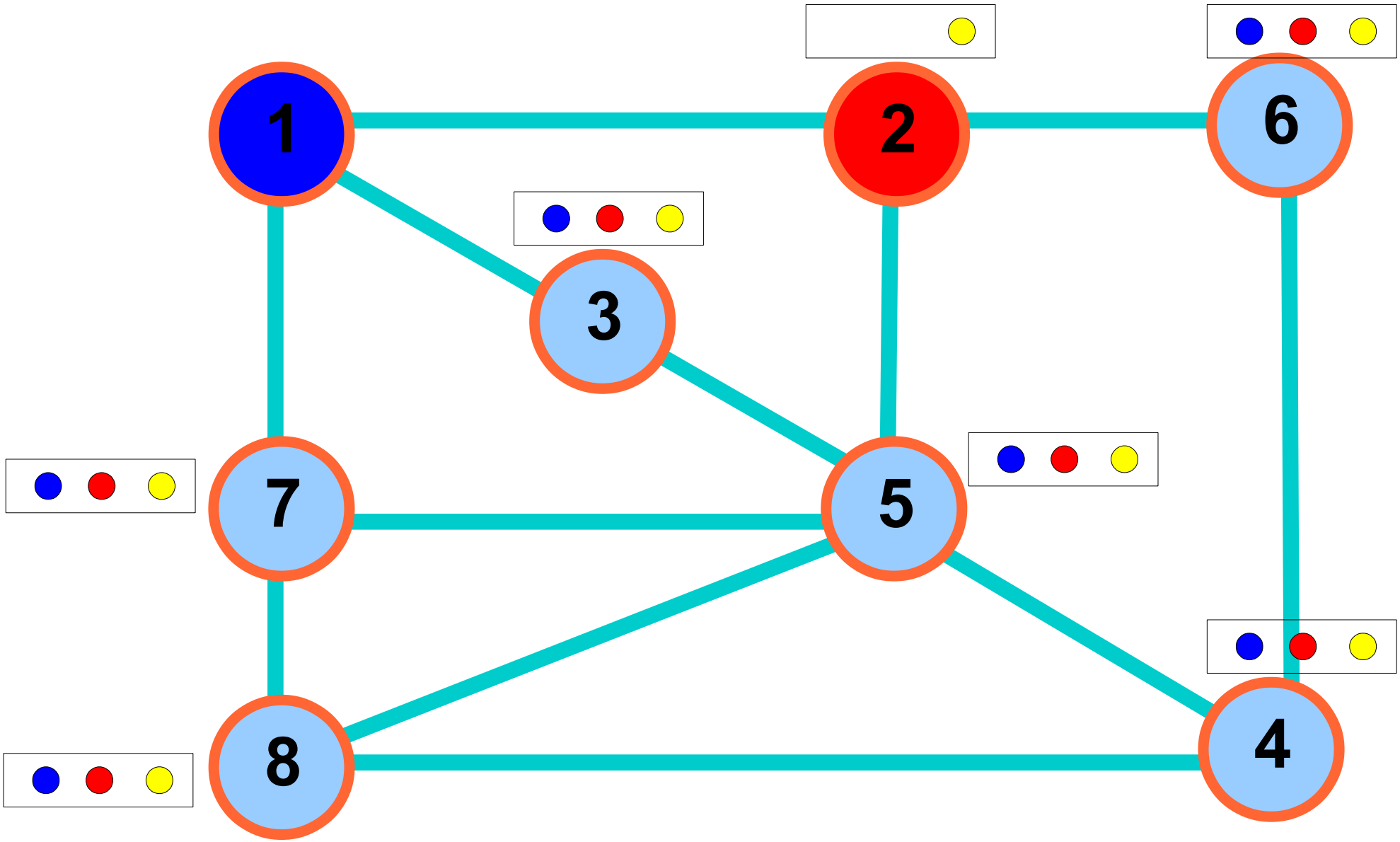
On impose 1 en bleu



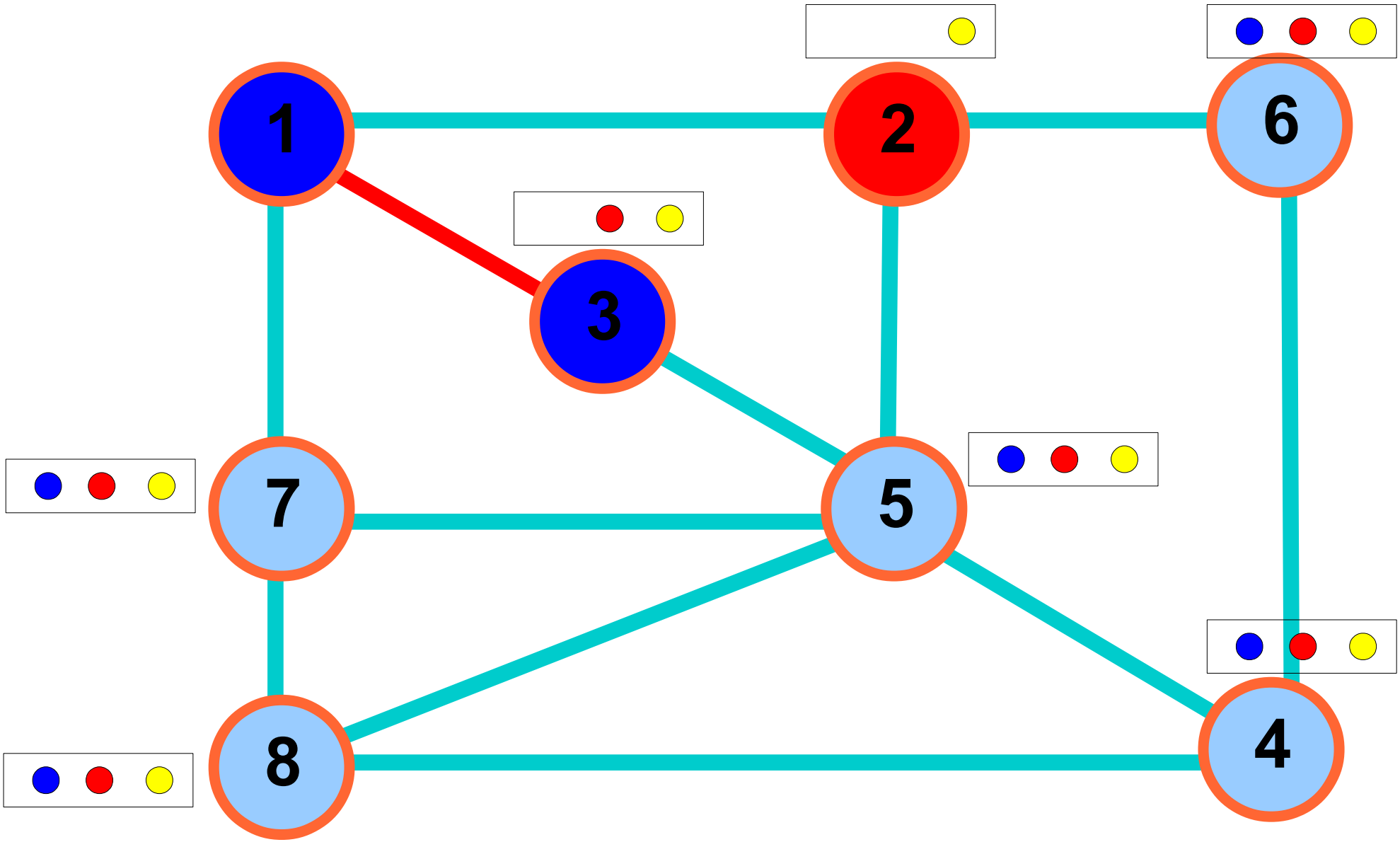
2 en bleu : conflit



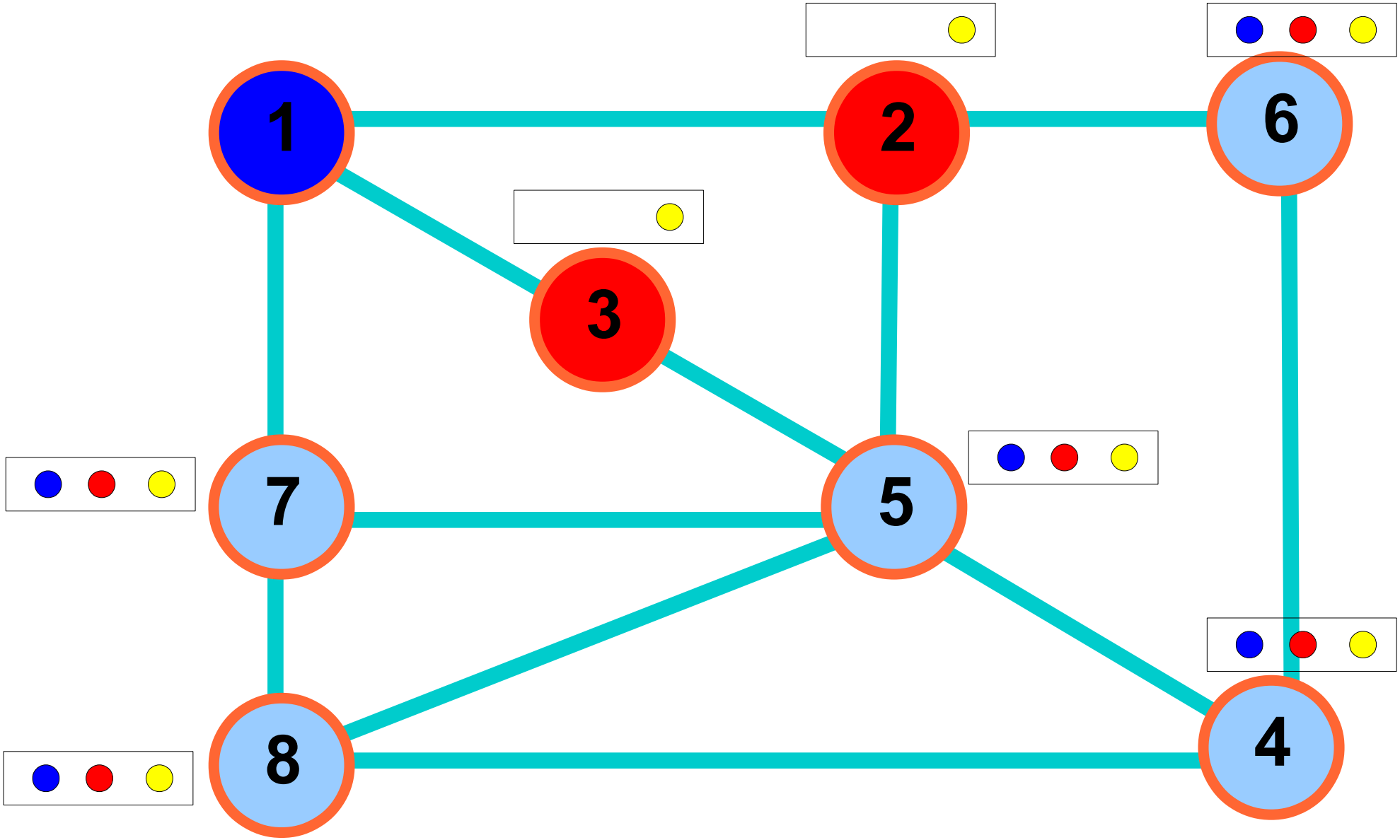
2 en rouge



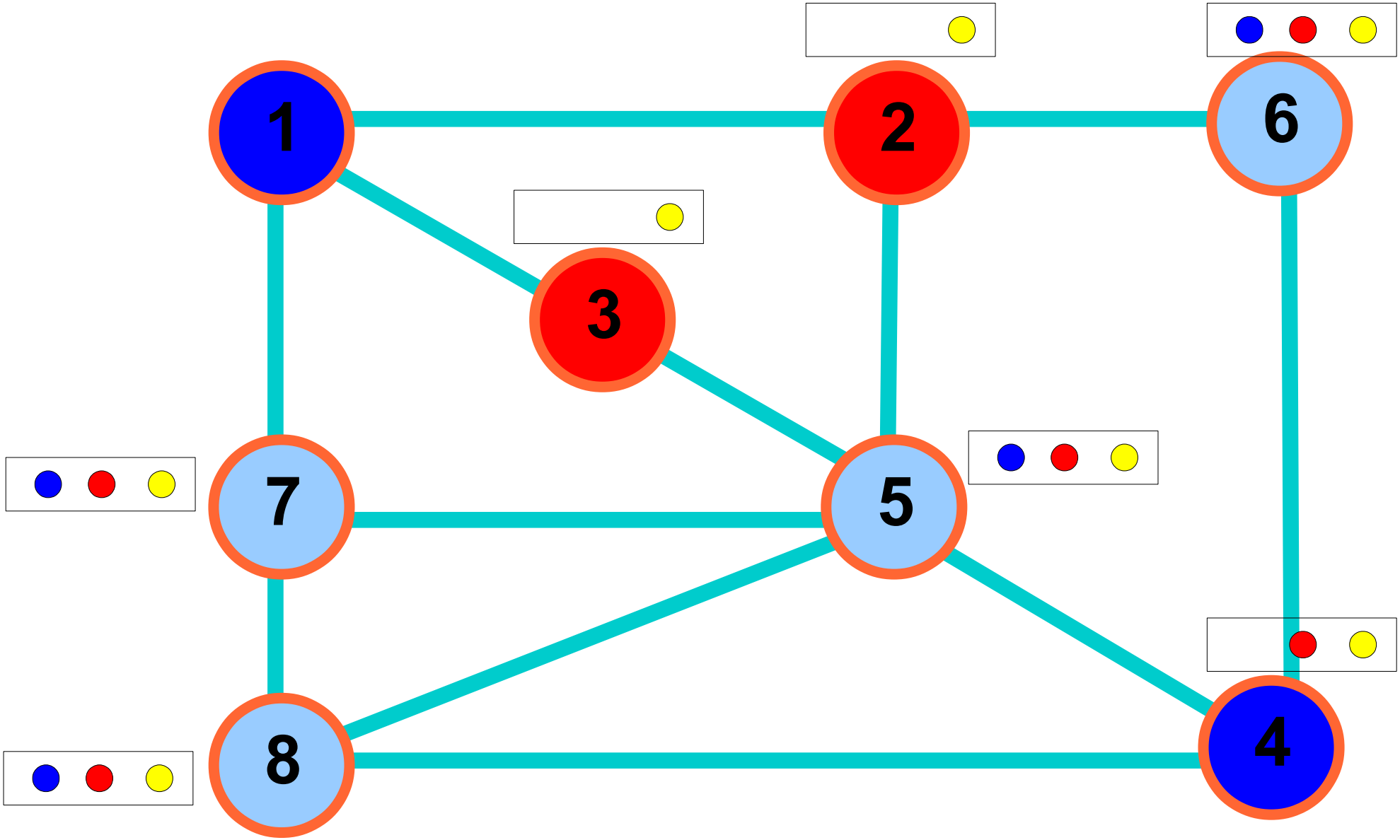
3 en bleu : conflit



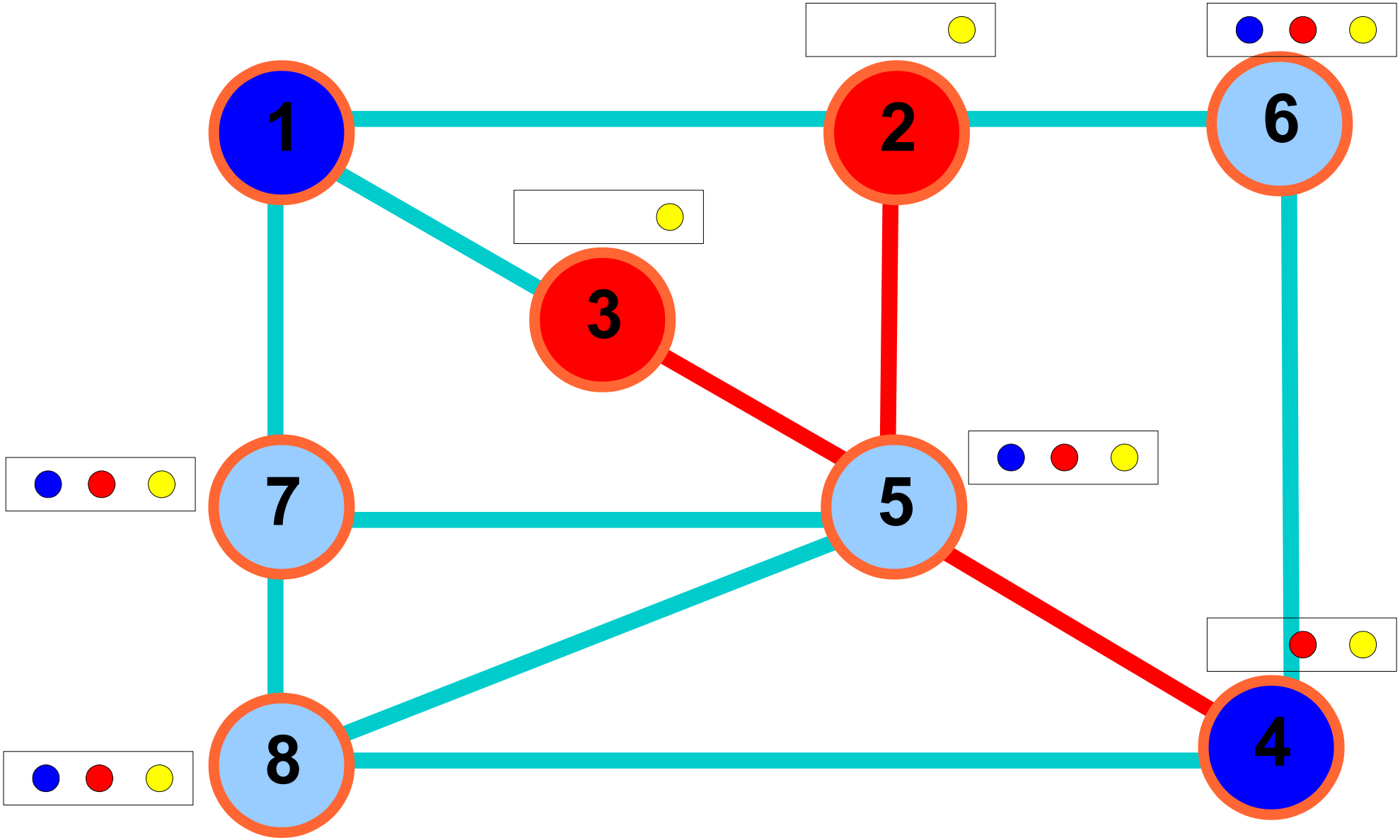
3 en rouge



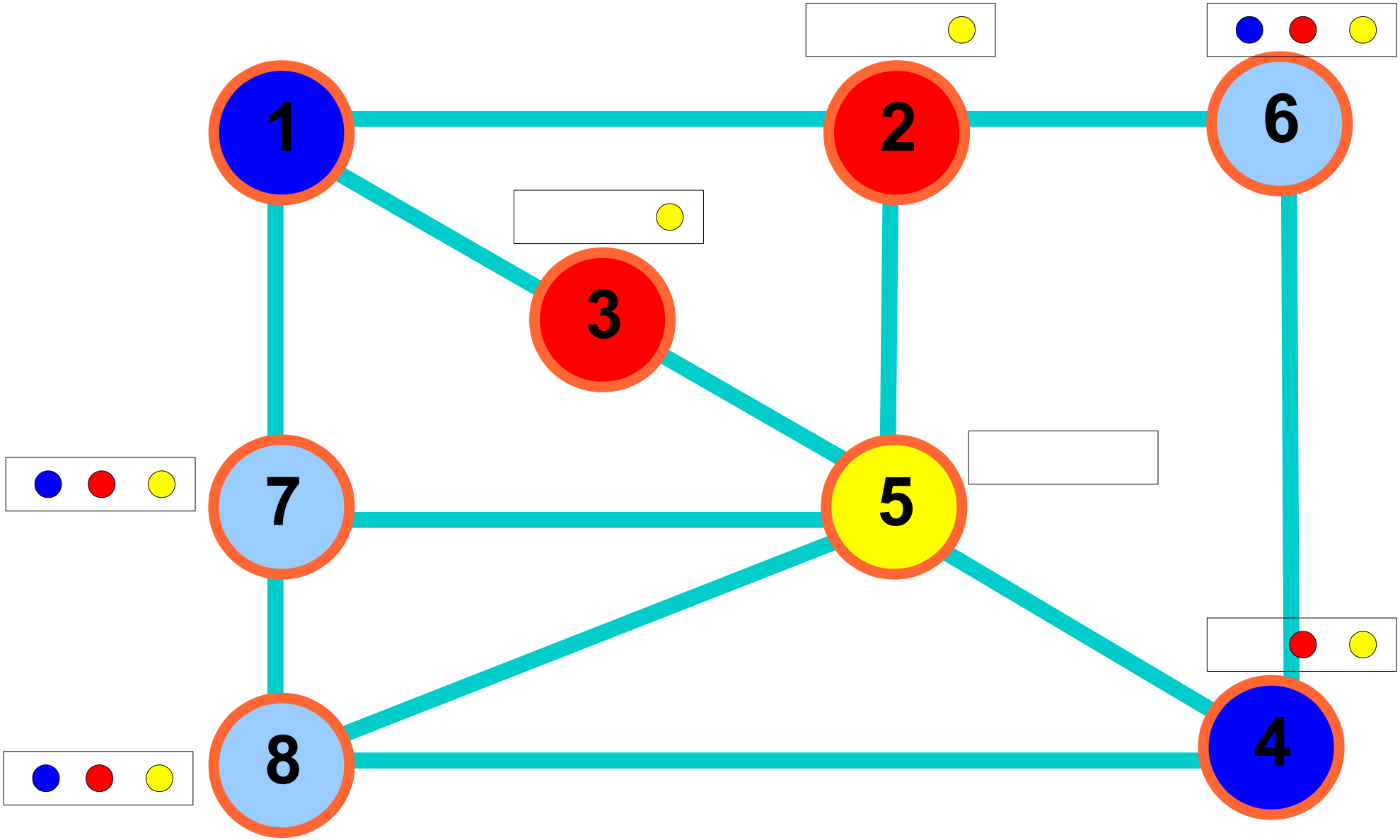
4 en bleu



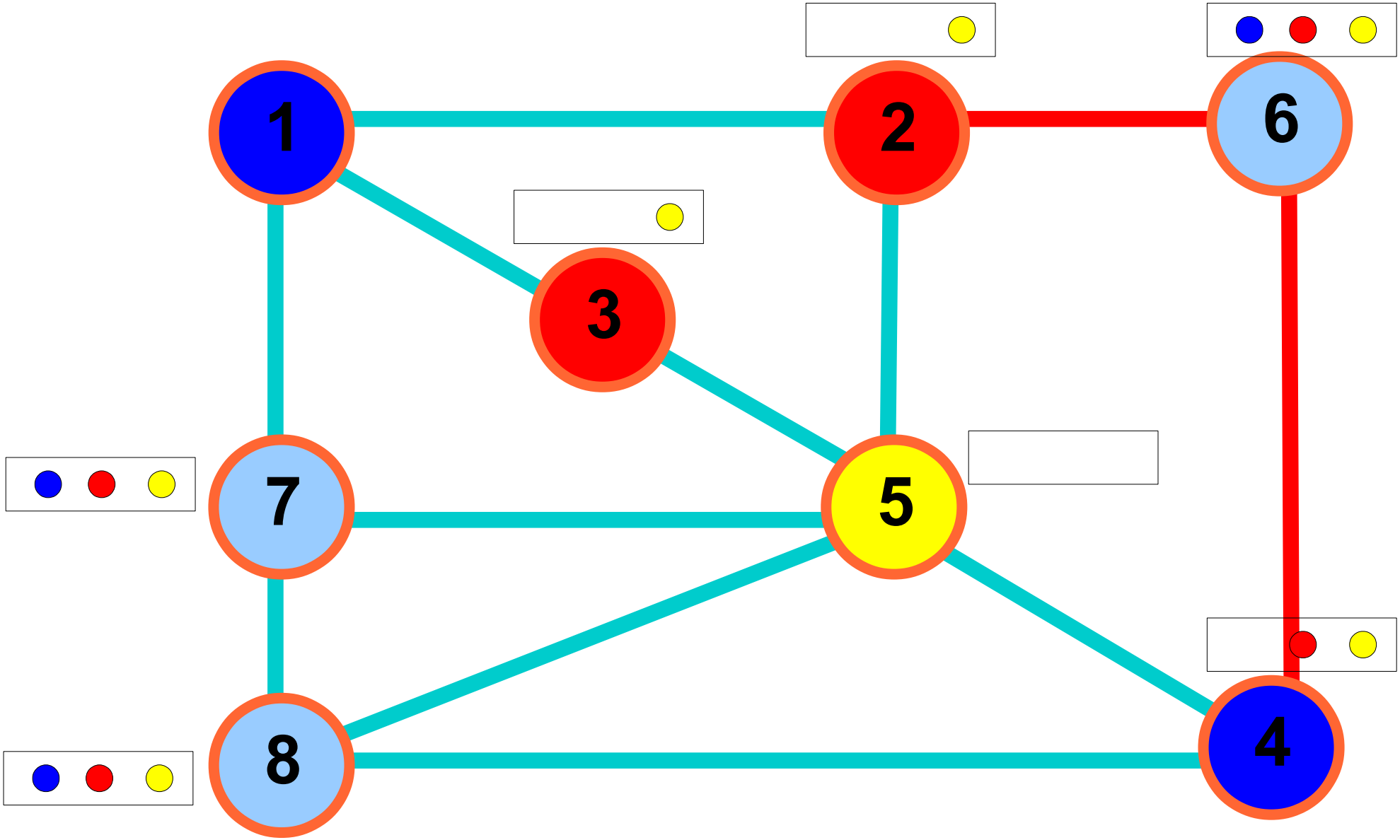
5 en bleu ou rouge : conflit



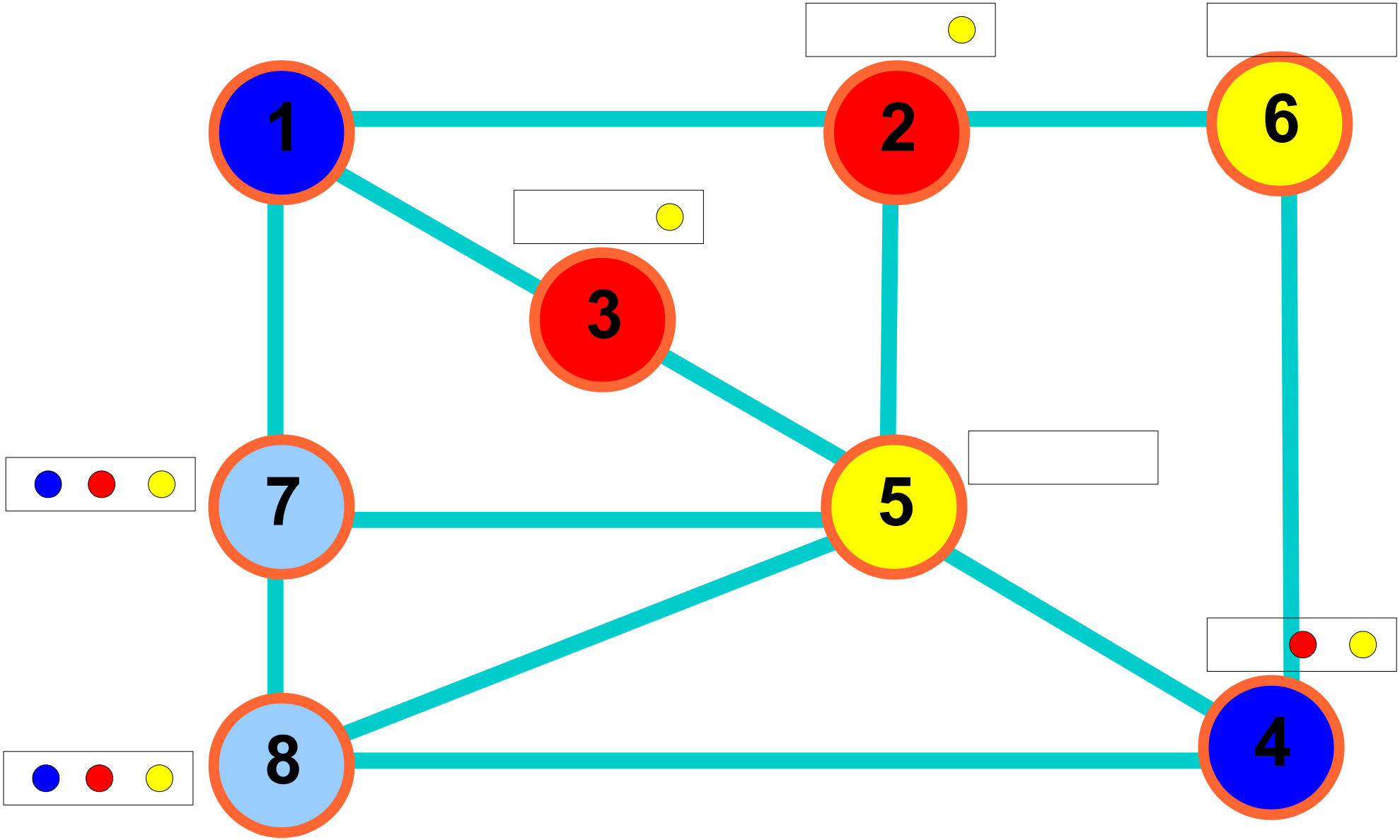
5 en jaune



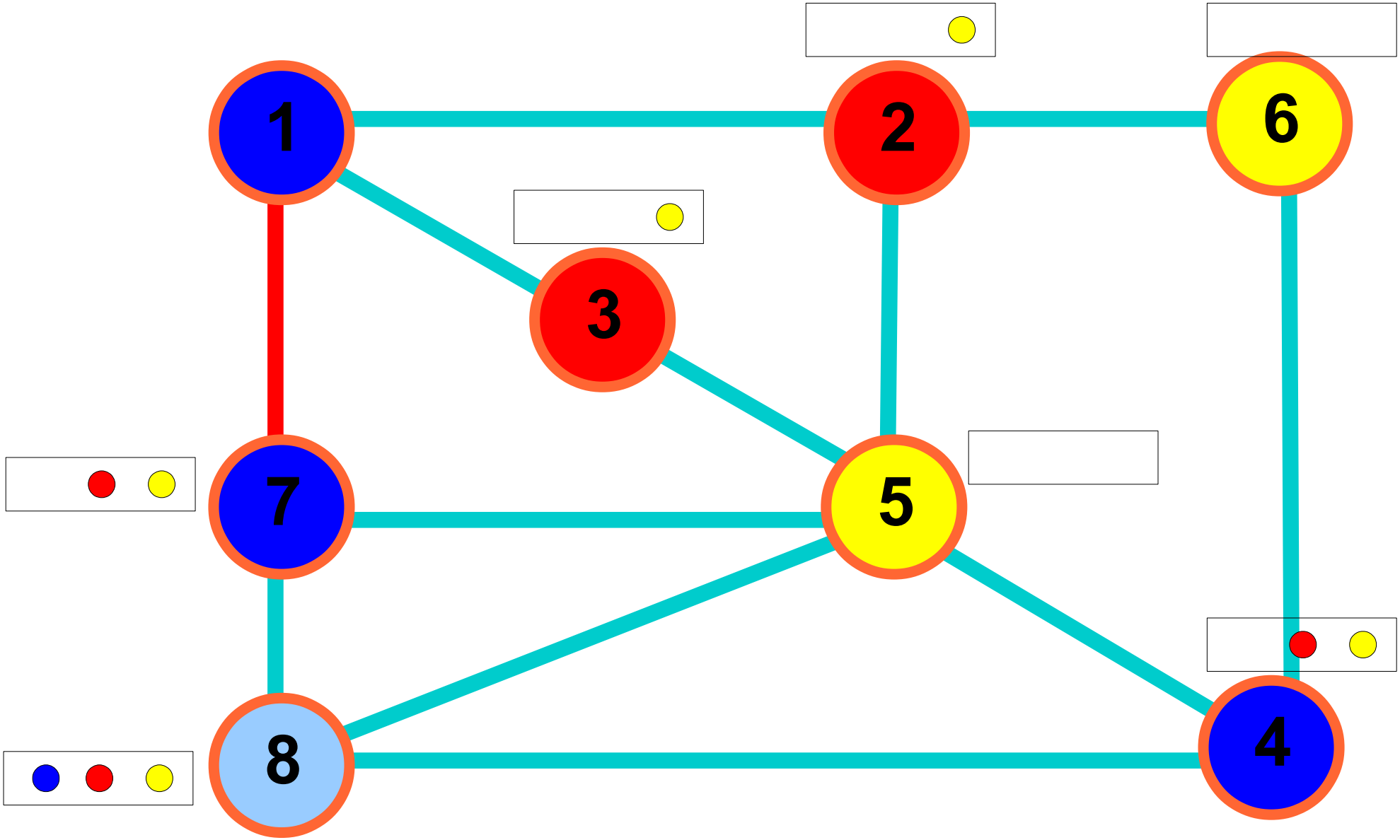
6 en bleu ou rouge : conflit



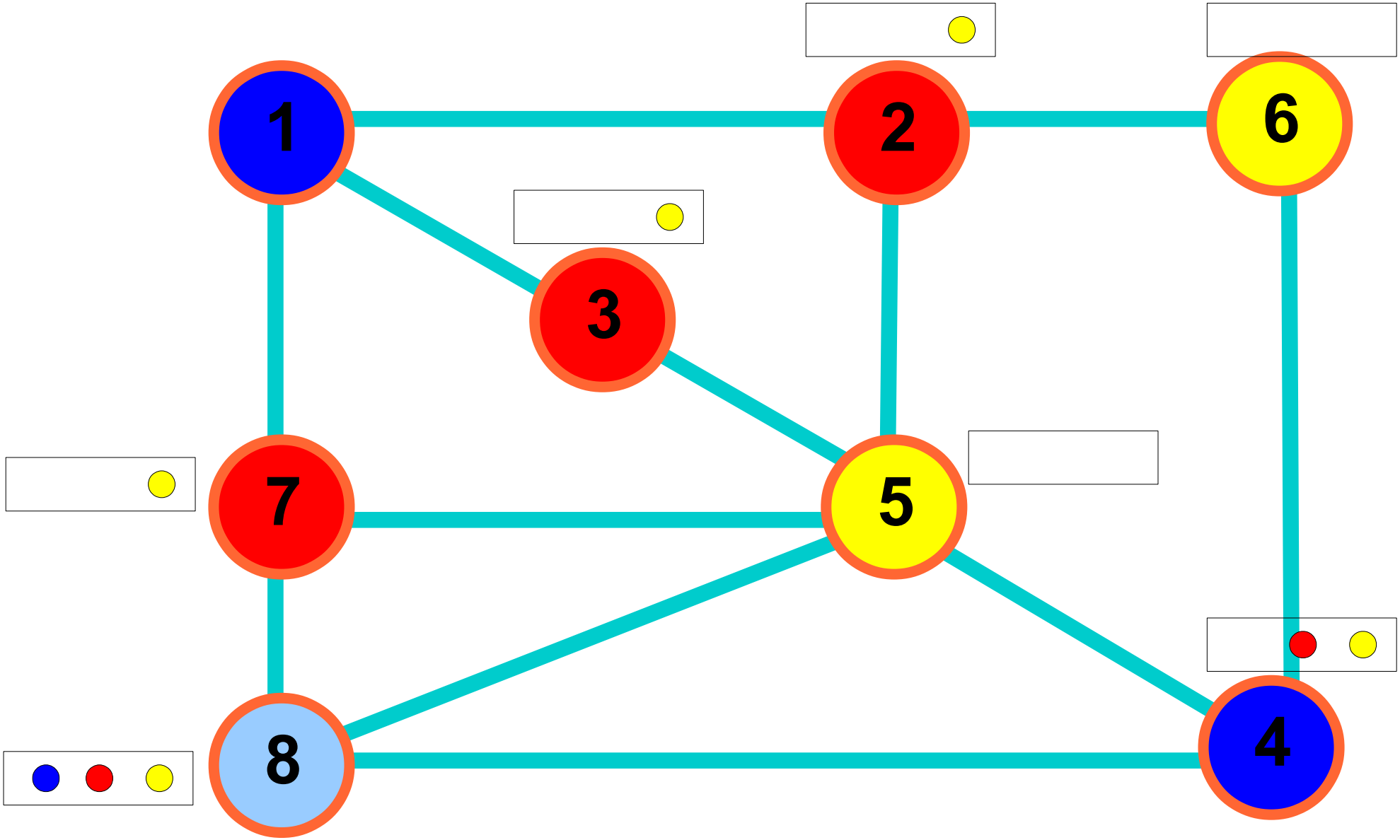
6 en jaune



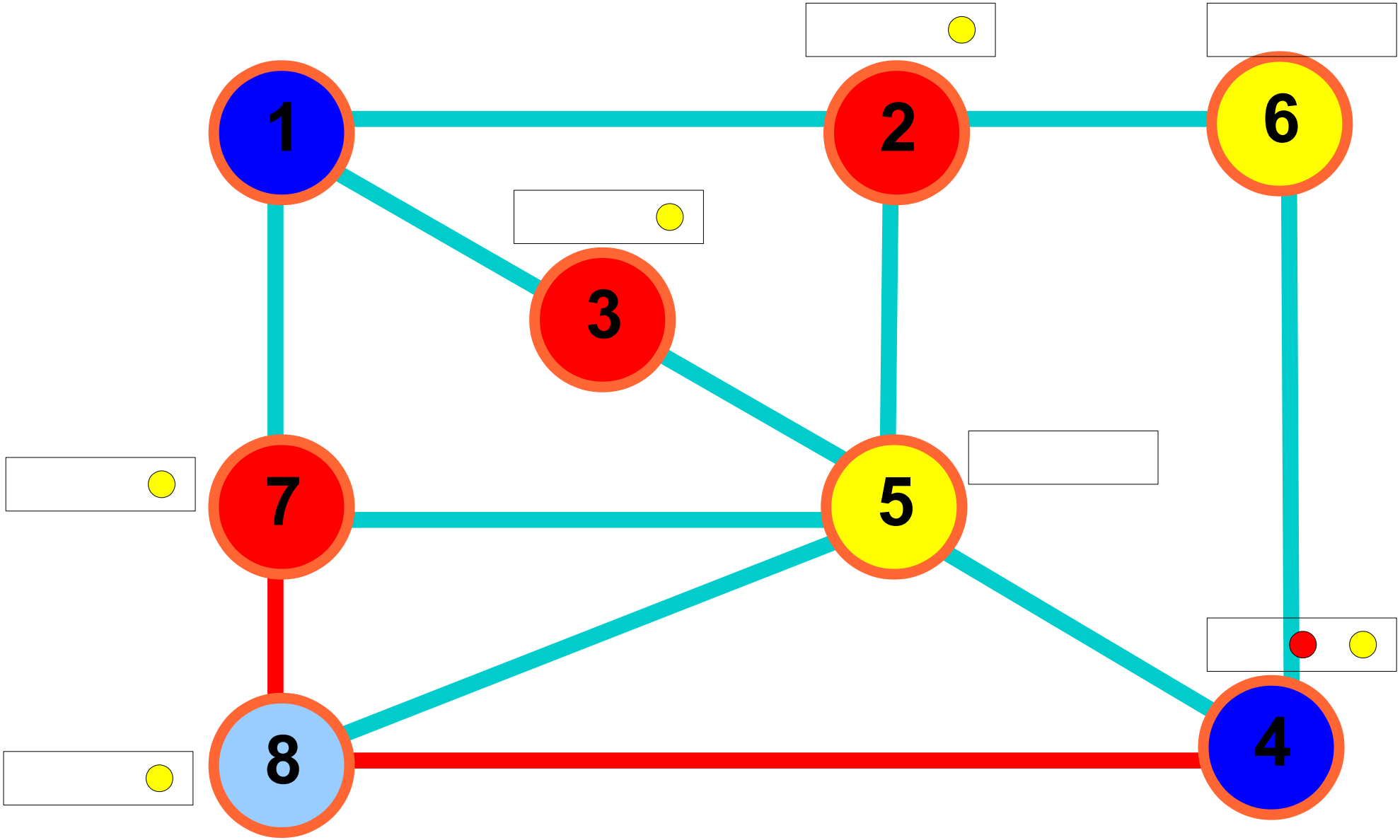
7 en bleu : conflit



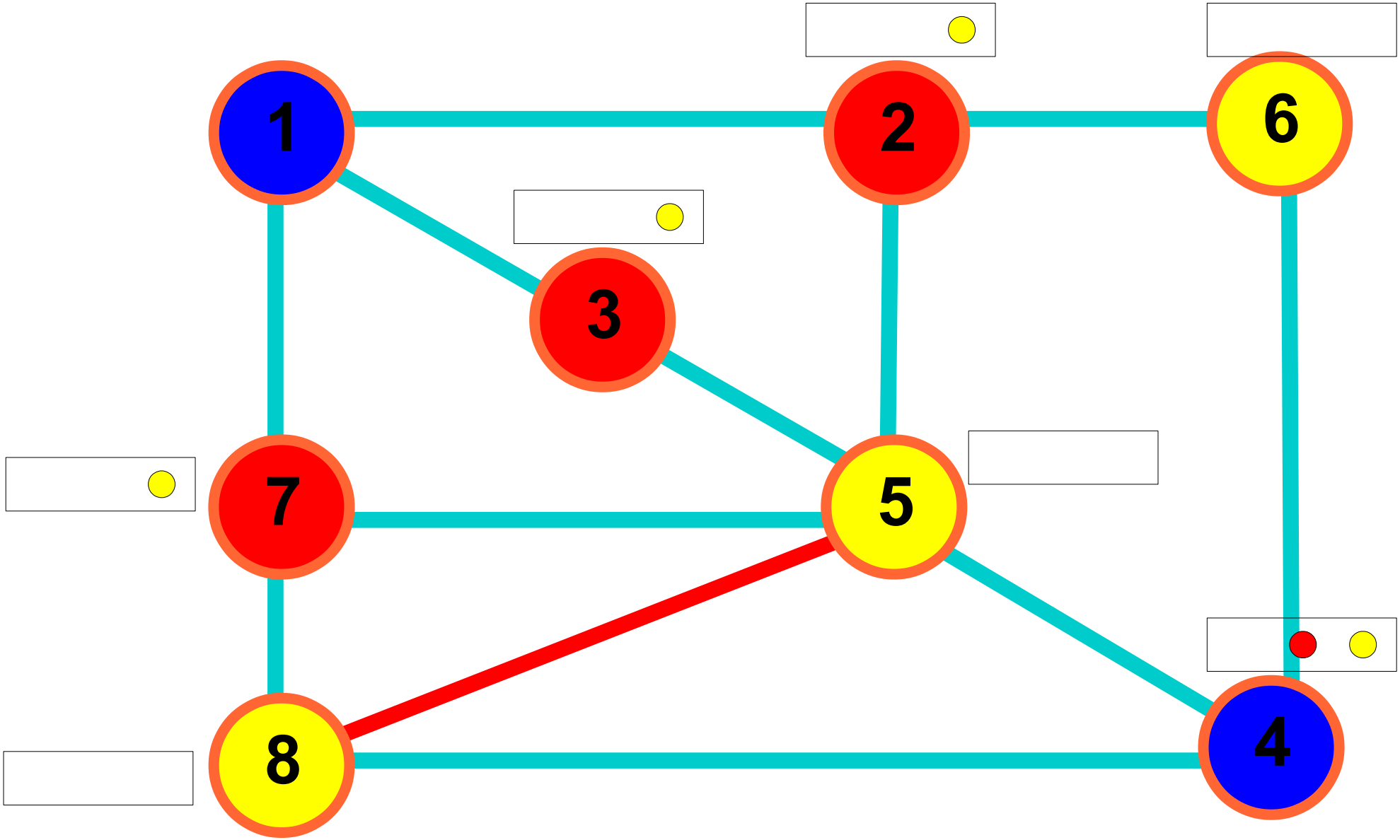
7 en rouge



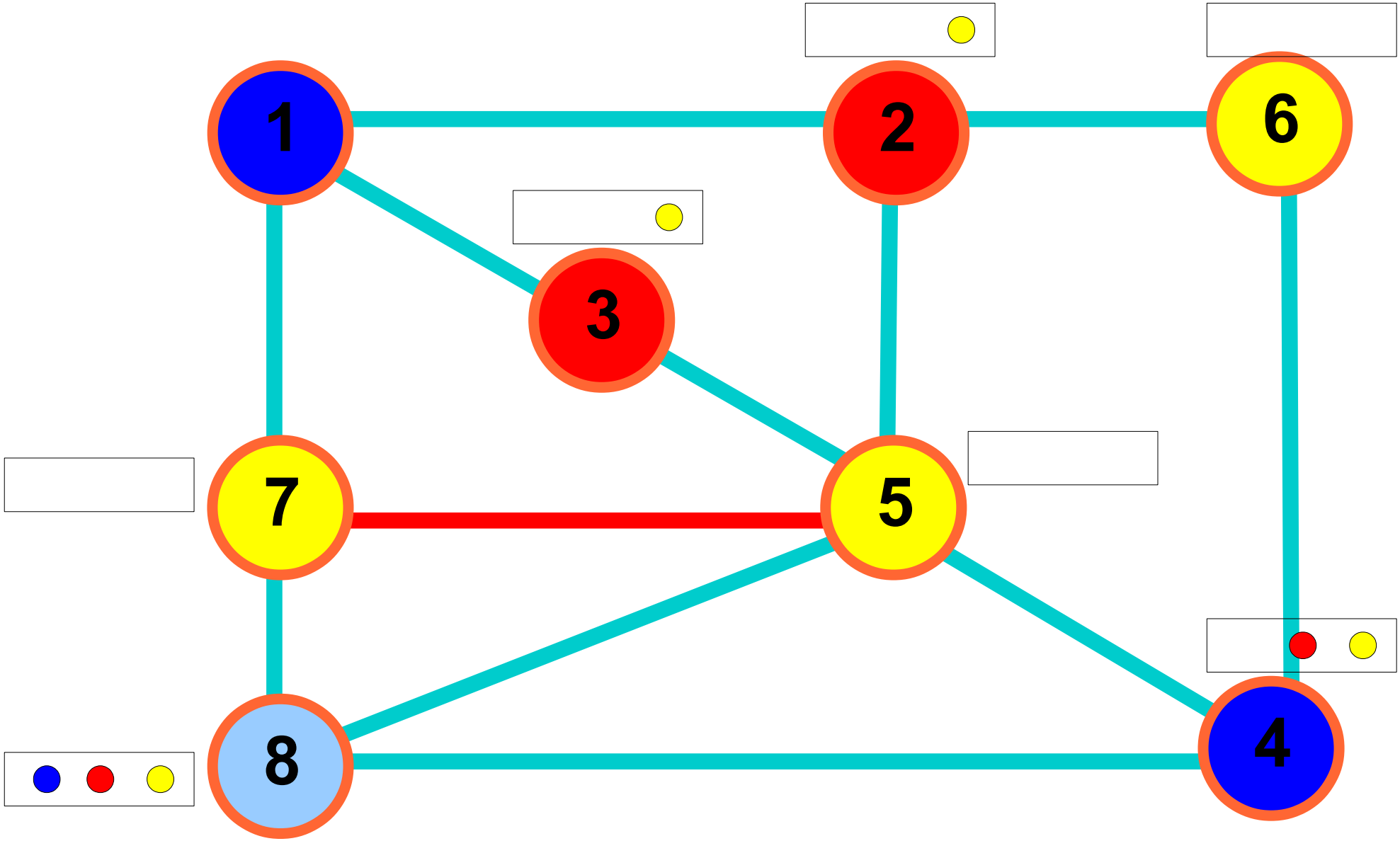
8 ne peut être ni bleu,
ni rouge ...



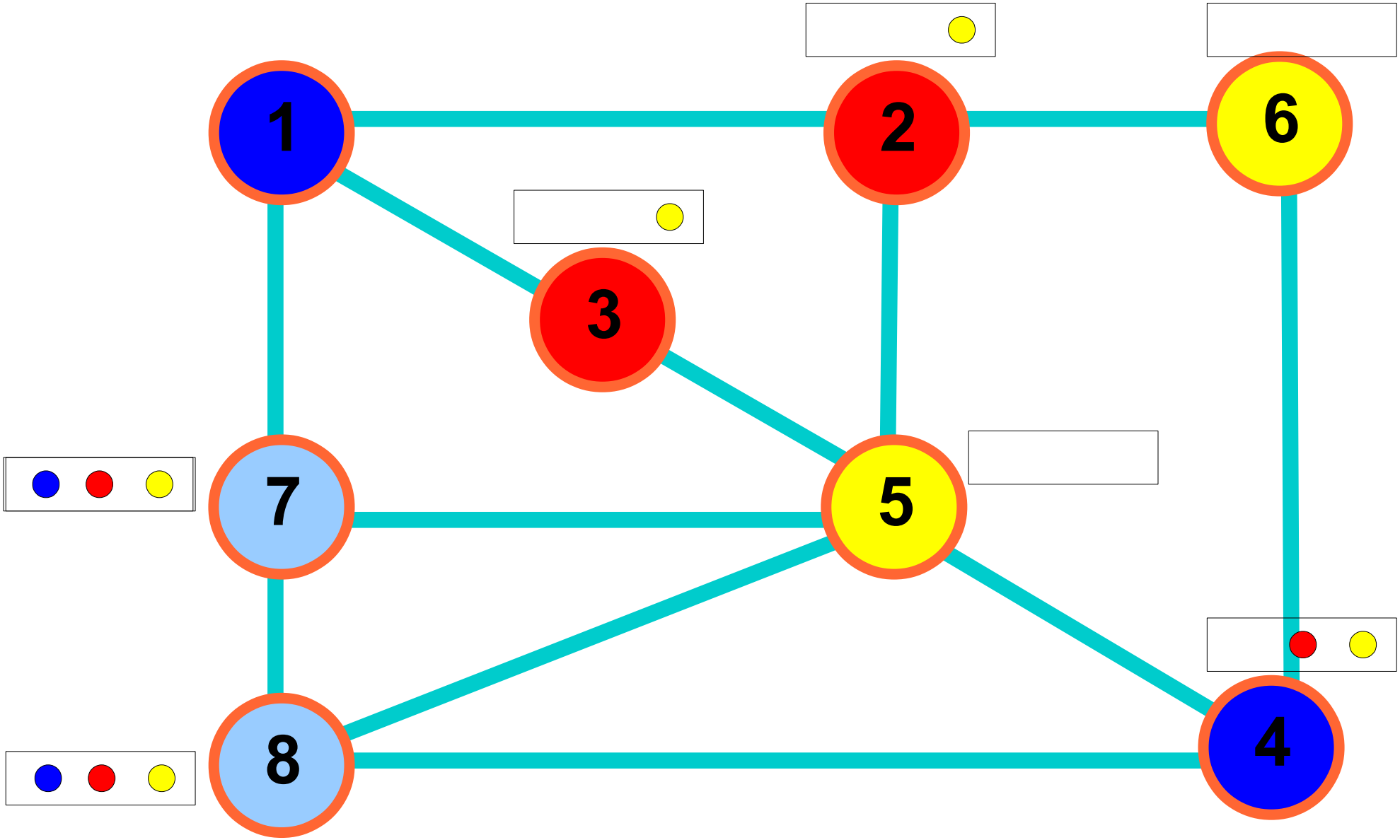
8 ne peut être ni bleu,
ni rouge … ni jaune !



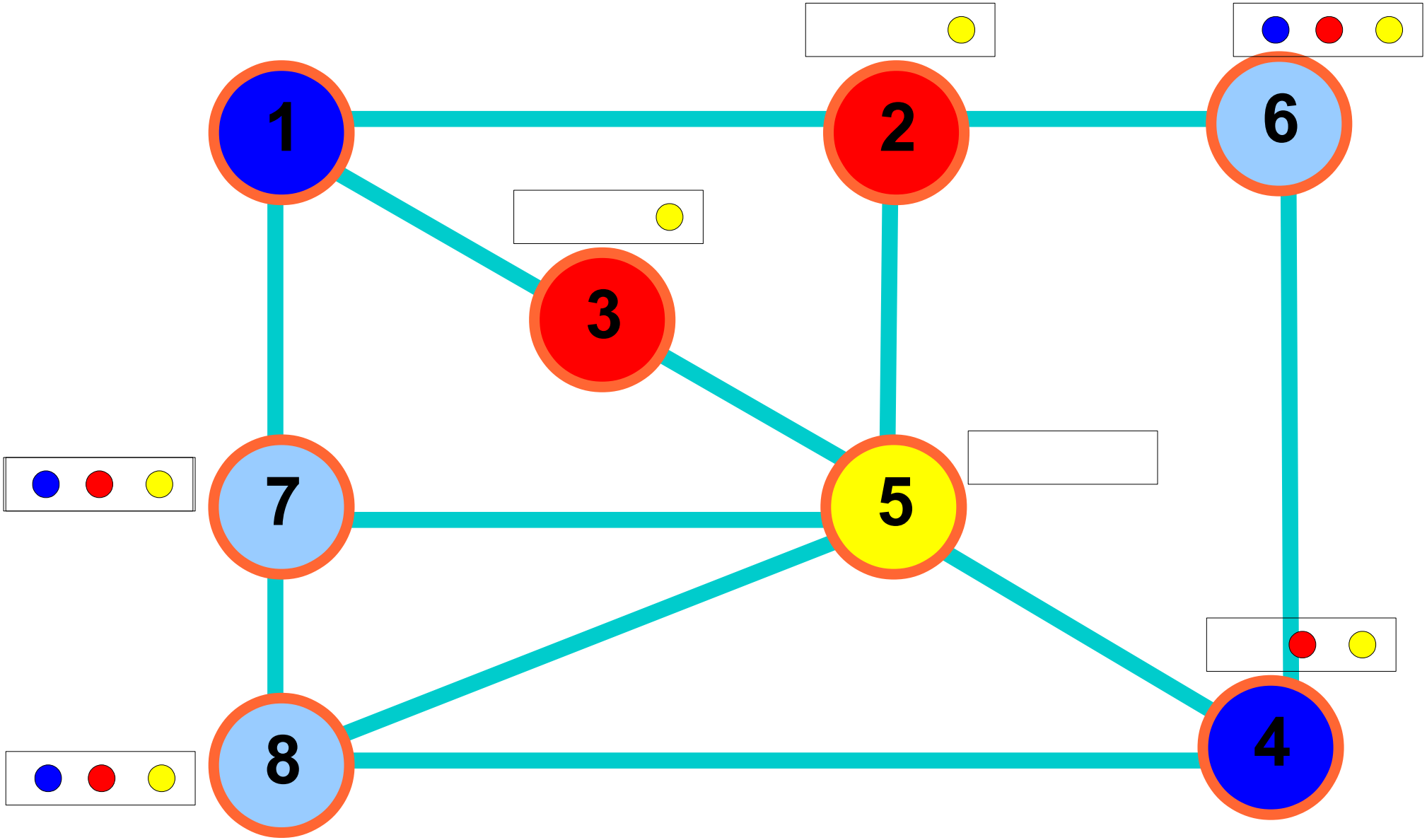
plus de possibilités pour 8, on revient à 7 et on essaye le jaune...conflit



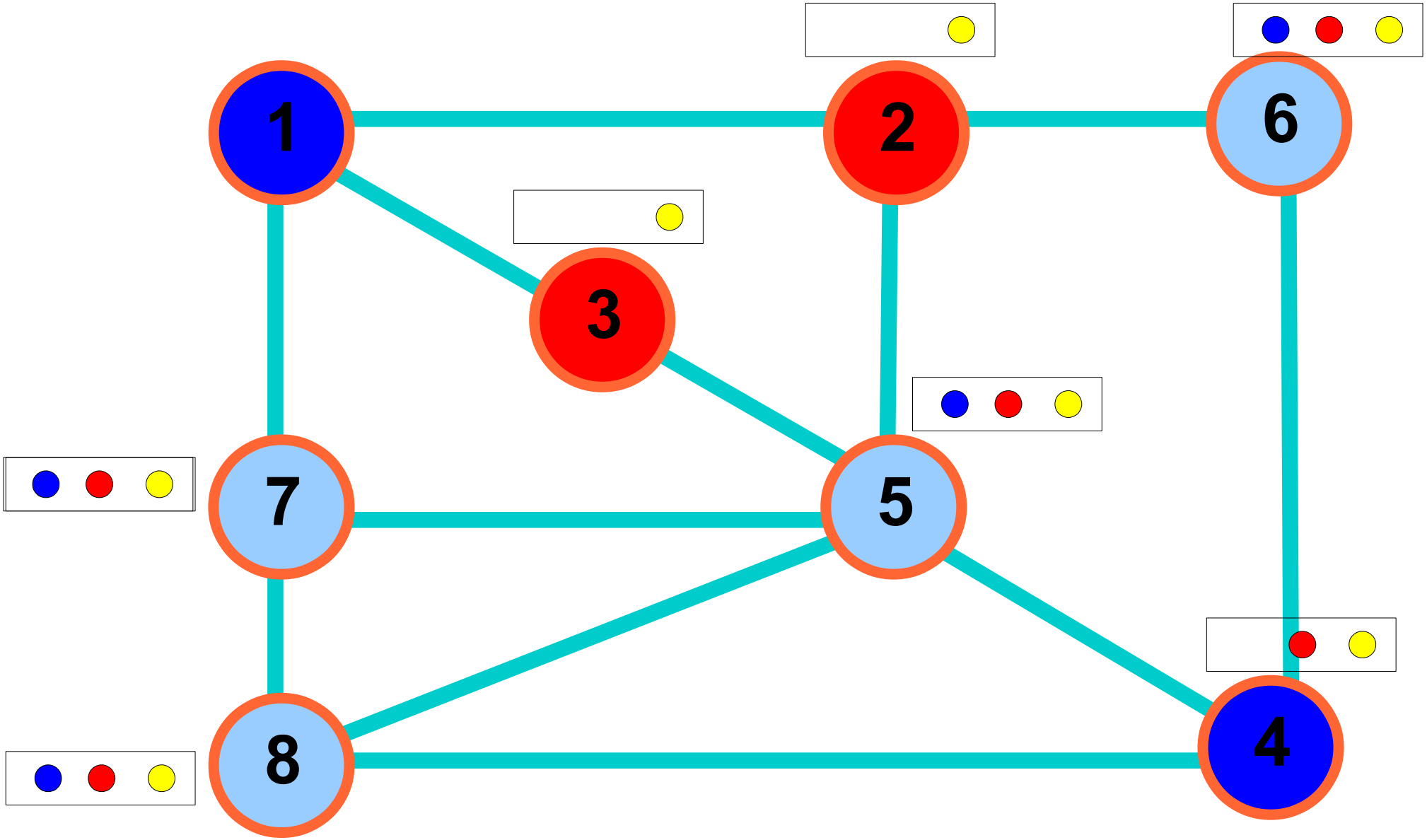
plus de possibilités pour 7, on revient à 6...



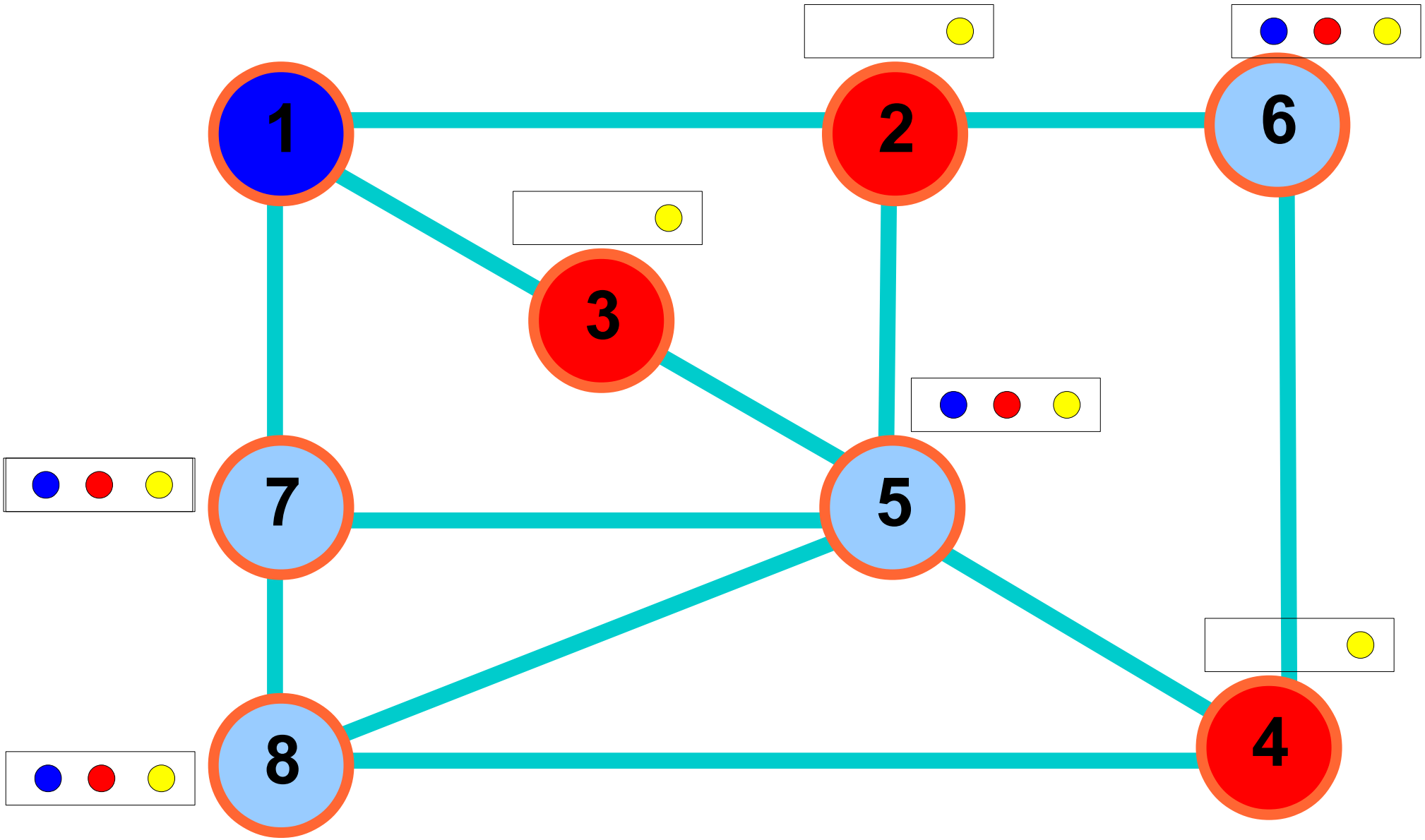
plus de possibilités pour 6, on revient à 5...



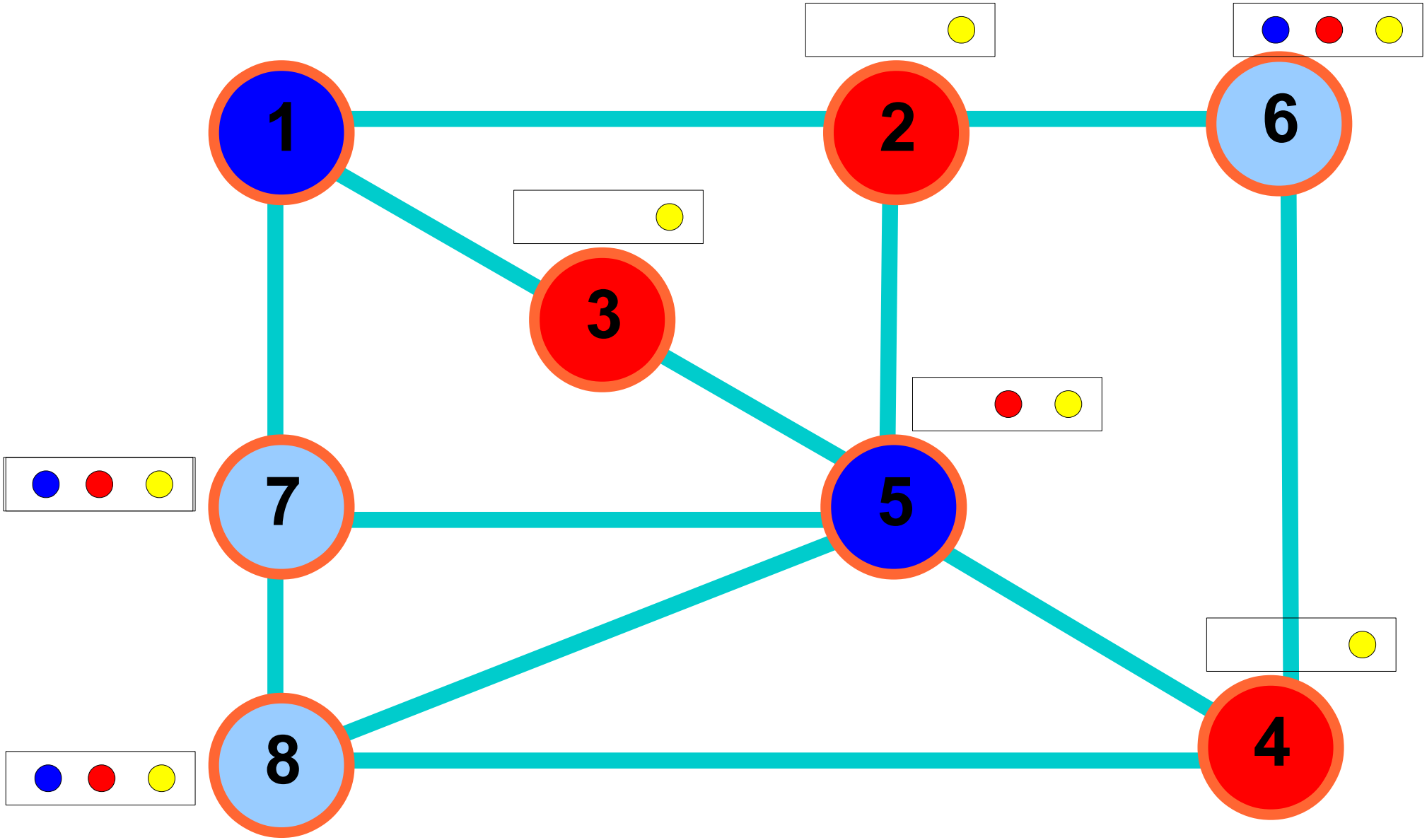
plus de possibilités pour 5, on revient à 4...



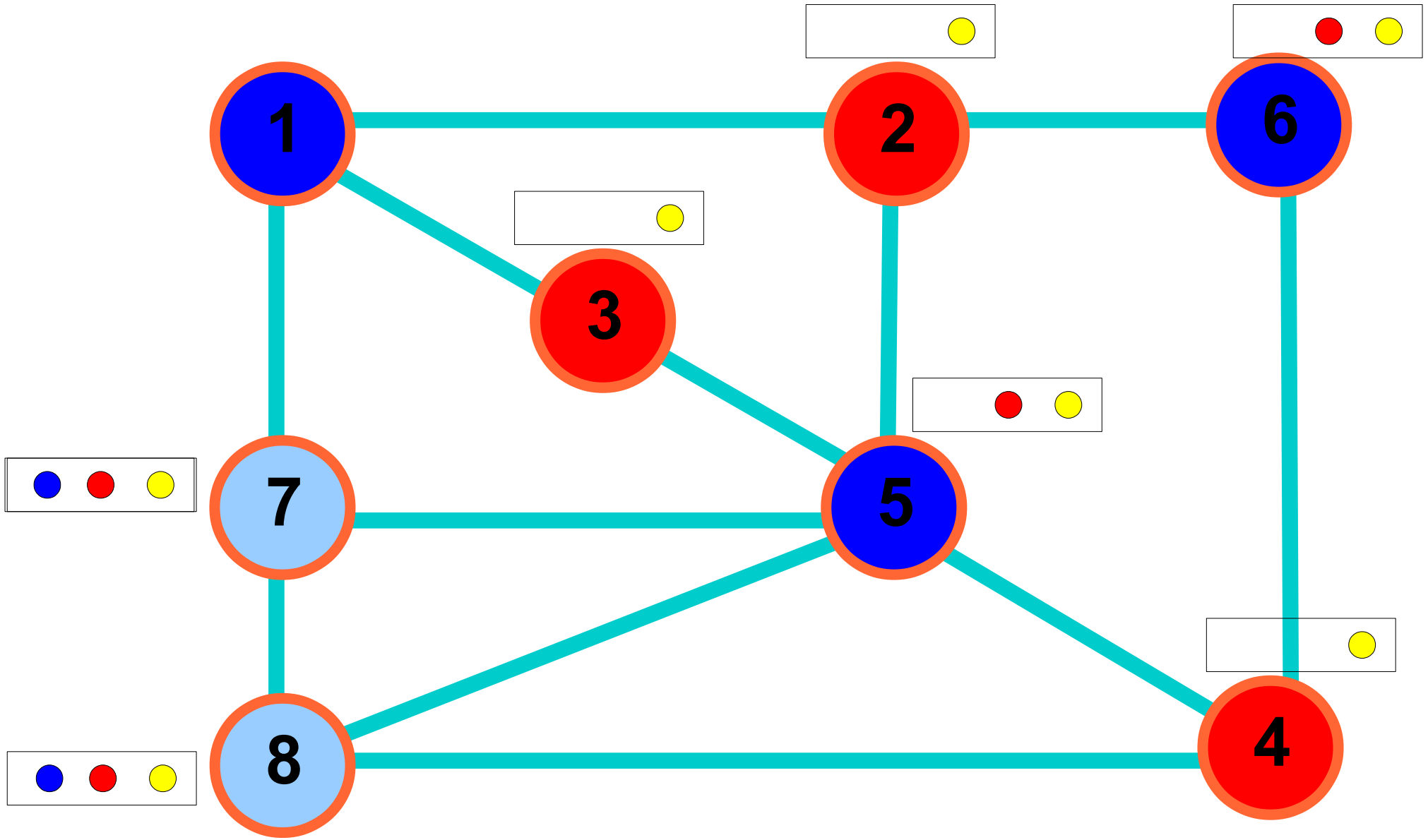
On essaie 4 en rouge



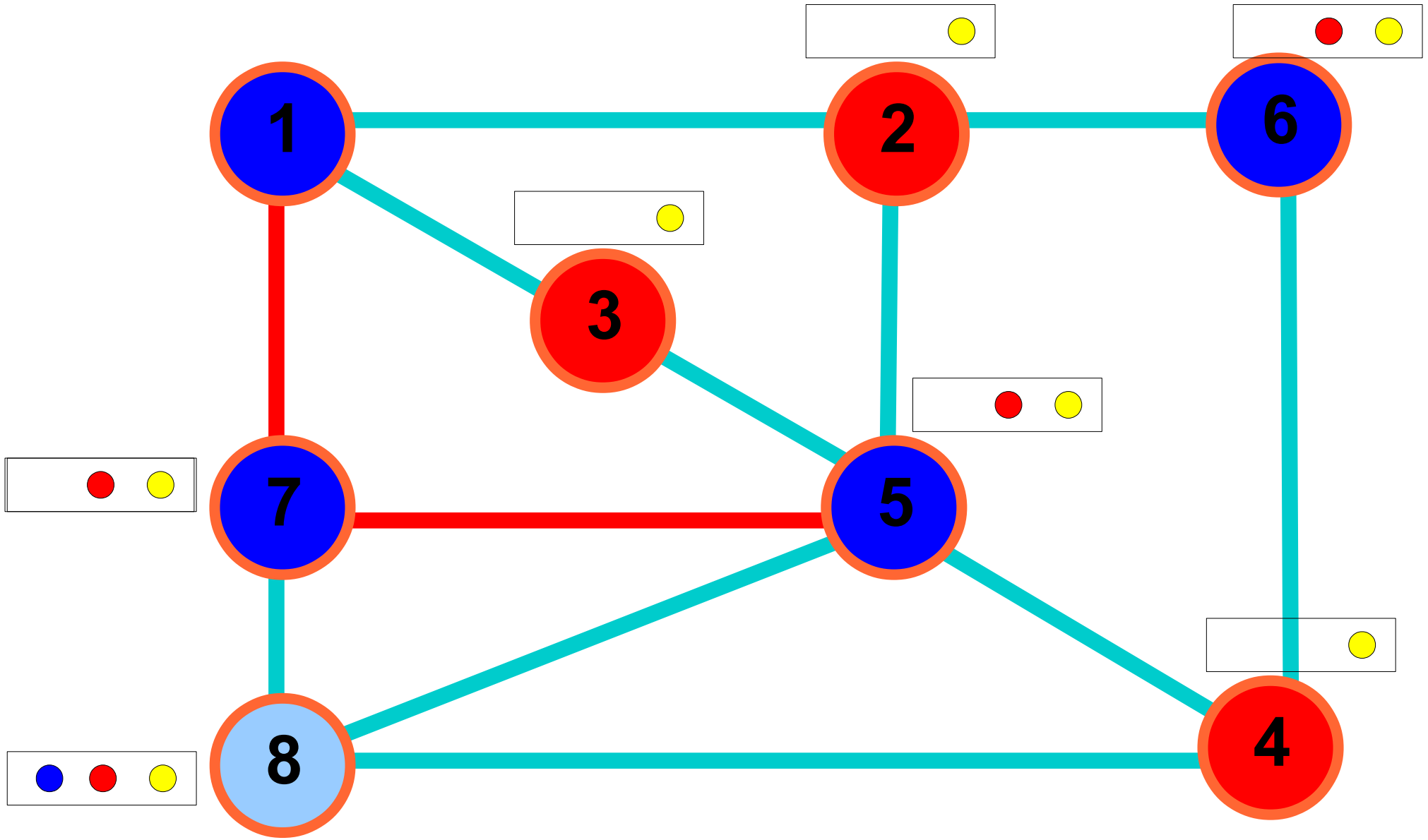
5 en bleu



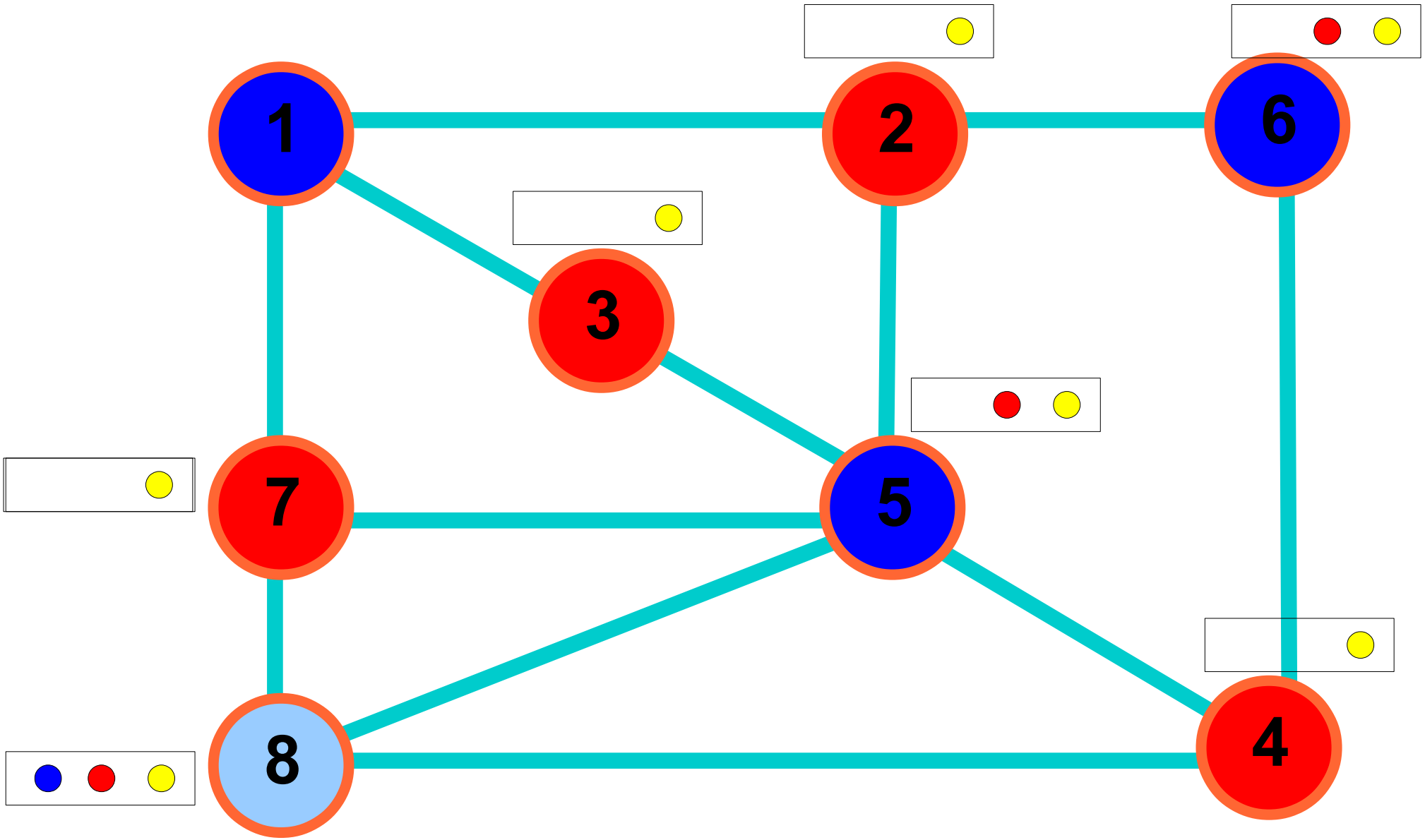
6 en bleu



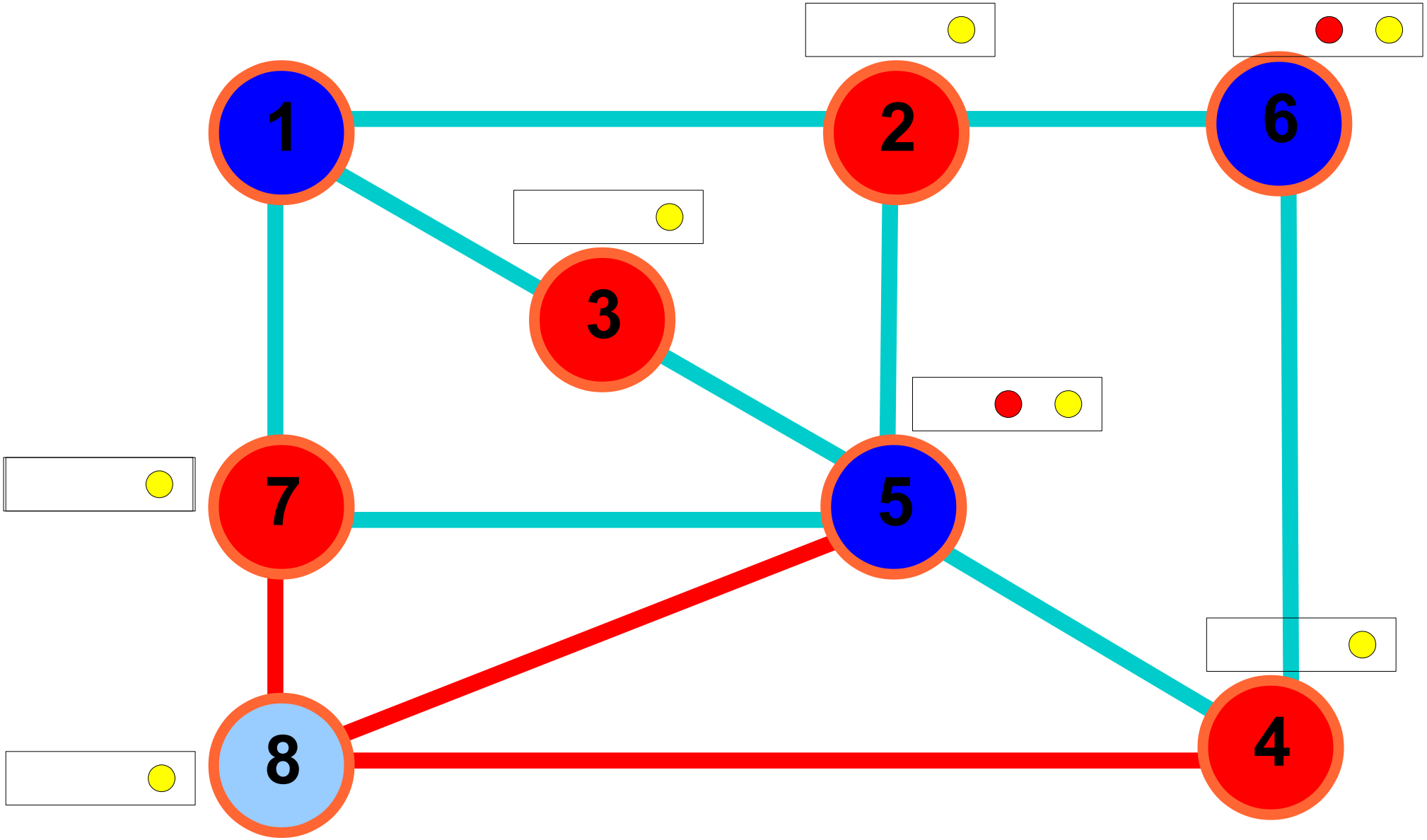
7 en bleu : conflit



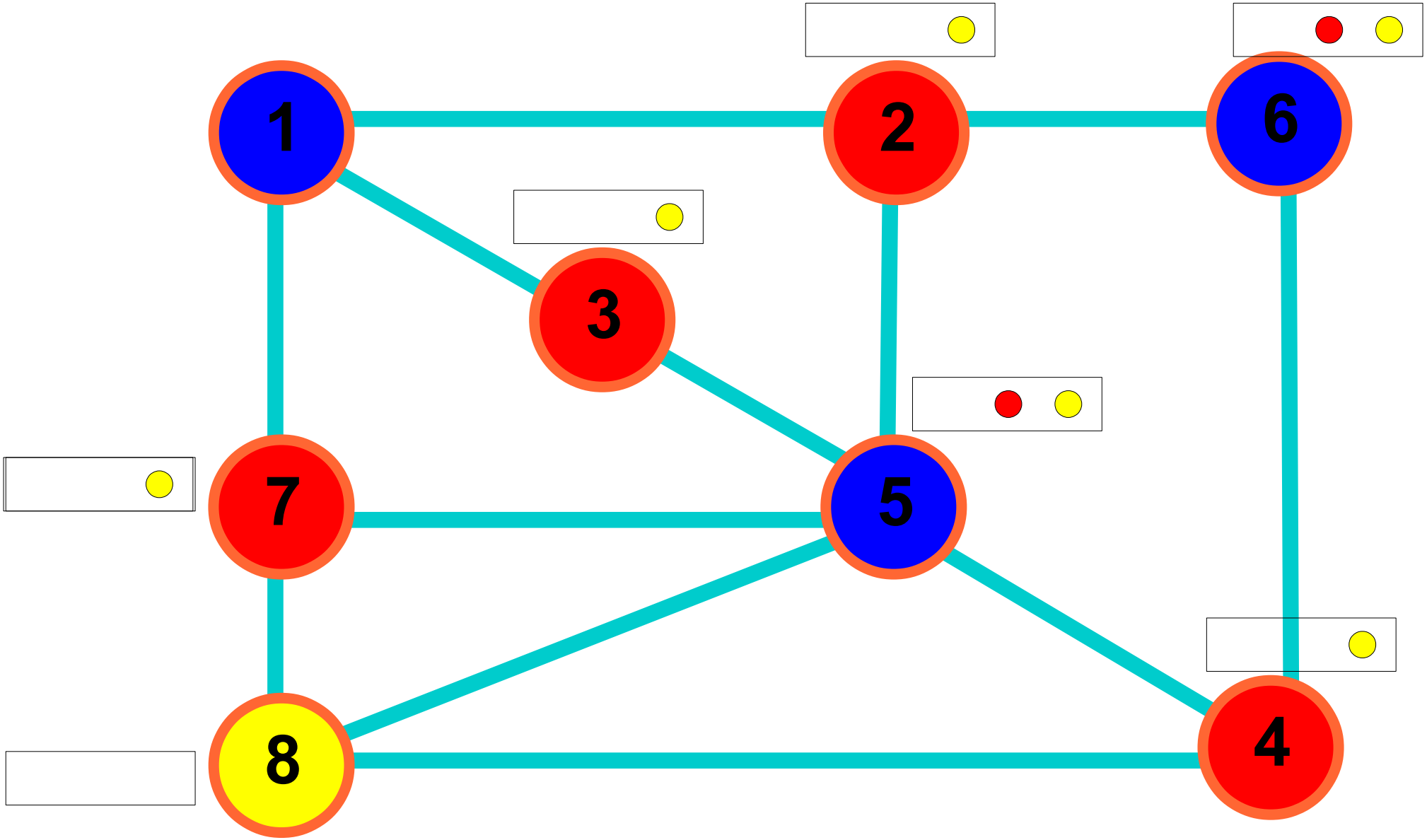
7 en rouge



8 en bleu ou rouge : conflits



8 en jaune



On a trouvé une 3 coloration !