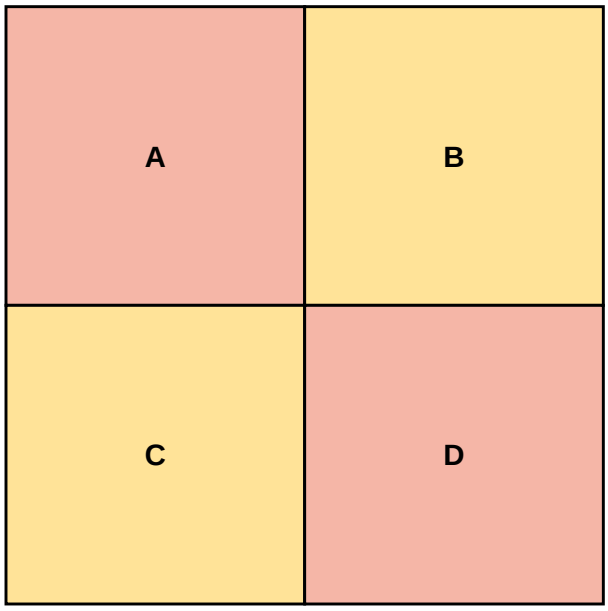
Four color theorem

Answer key: one solution per map.

Shared edge = different colors. Corners may match. Leave the outside white.

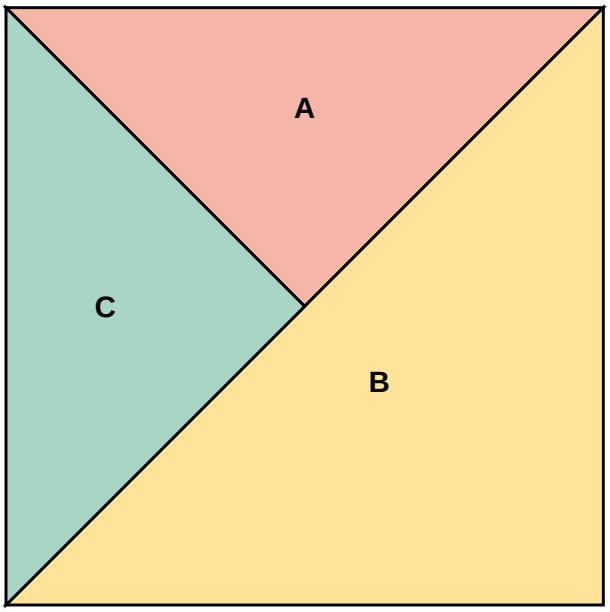
1. Corners do not count



Minimum: 2 colors

A: color 1
B: color 2
C: color 2
D: color 1

2. Three neighbors



Minimum: 3 colors

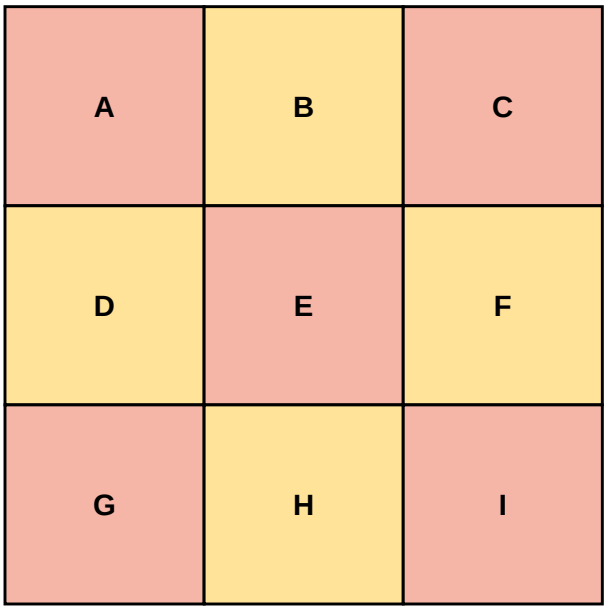
A: color 1
B: color 2
C: color 3

Four color theorem

Answer key: one solution per map.

Shared edge = different colors. Corners may match. Leave the outside white.

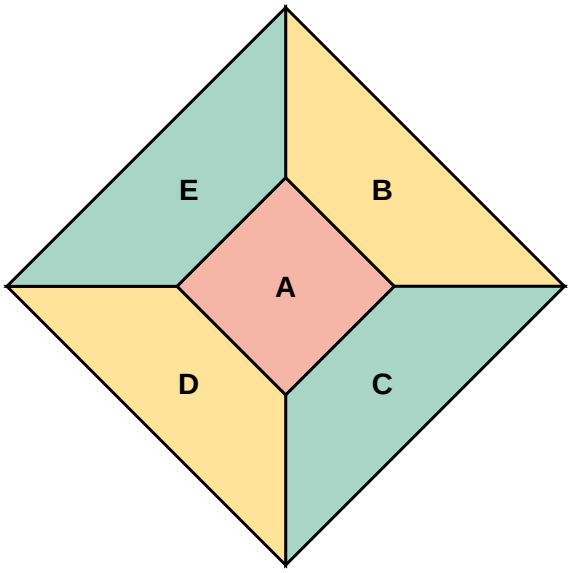
3. More regions, same two colors



Minimum: 2 colors

A: color 1
B: color 2
C: color 1
D: color 2
E: color 1
F: color 2
G: color 1
H: color 2
I: color 1

4. An even ring



Minimum: 3 colors

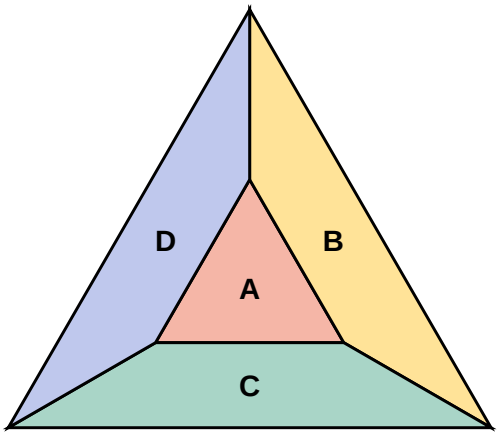
A: color 1
B: color 2
C: color 3
D: color 2
E: color 3

Four color theorem

Answer key: one solution per map.

Shared edge = different colors. Corners may match. Leave the outside white.

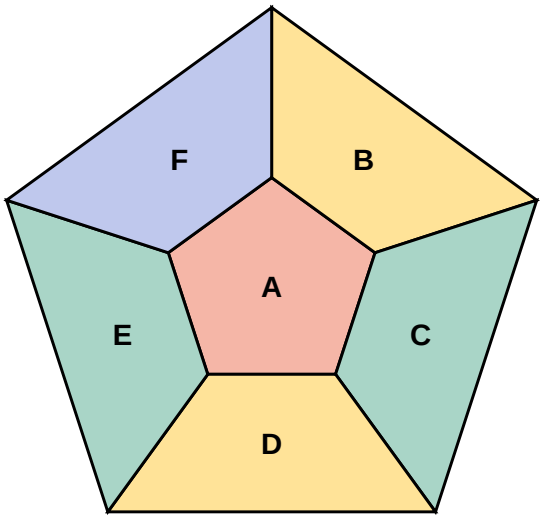
5. Four mutual neighbors



Minimum: 4 colors

A: color 1
B: color 2
C: color 3
D: color 4

6. An odd ring



Minimum: 4 colors

A: color 1
B: color 2
C: color 3
D: color 2
E: color 3
F: color 4