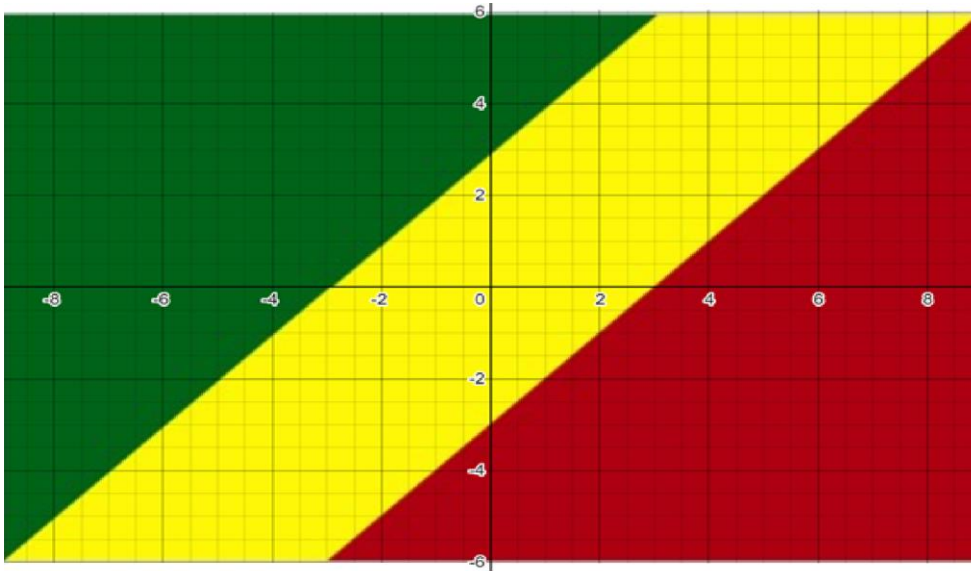


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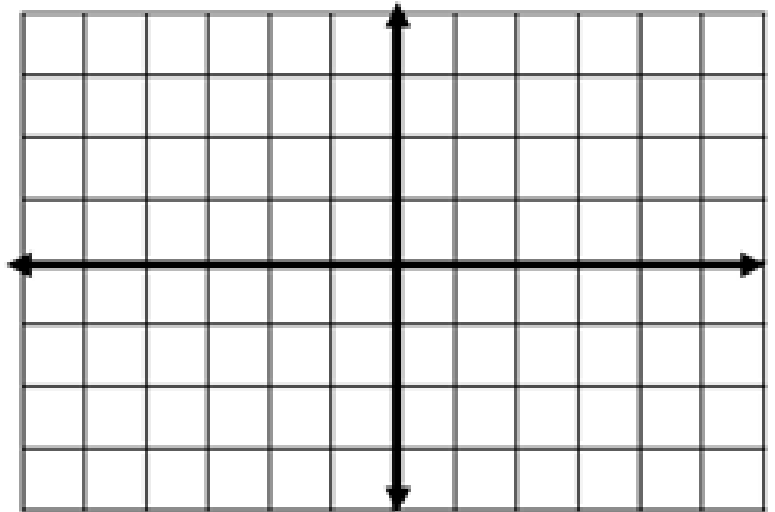
Algebra
What Country Is It in Africa?

1. Use the flag below to answer the following questions.



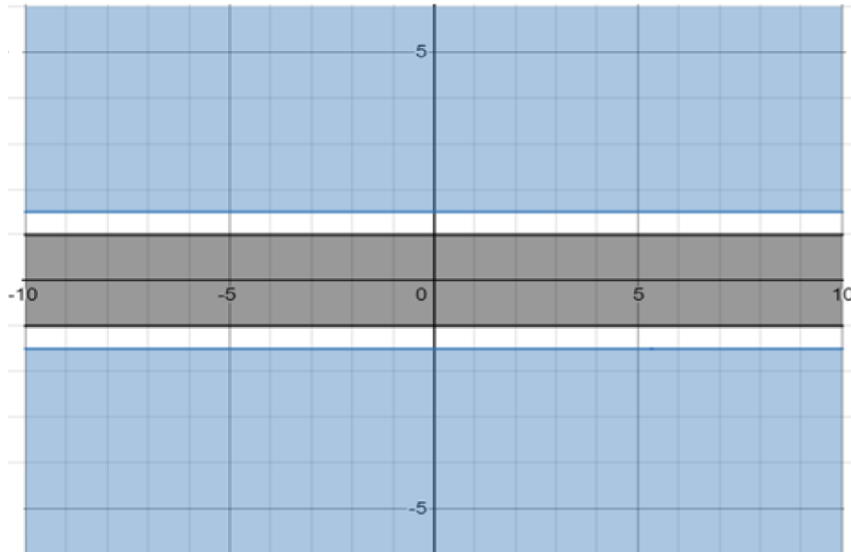
- i. Write the equations that would create the upper and lower borders of the flag.
- ii. Write the equations that create the left and right borders of the flag.
- iii. Write the equations that create the yellow region.
- iv. What country is represented by this flag?
- v. What body of water borders this mystery country?
- vi. Go to <https://www.desmos.com/calculator/cve9mtcwmm> and test your equations.

2. i. On the provided x-y coordinate plane, shade the solution to $x \leq -2$ in GREEN
- ii. On the provided x-y coordinate plane, shade the solution to $x \geq 2$ in GREEN
- iii. What is the name of the country that this flag represents?



- iv. What is the capital of this mystery country?
- v. In what hemisphere does this country lie?
- v. What countries border this mystery country?
- vi. Replicate this flag using Desmos, equations, and inequalities.

3. Given the flag below, answer the following:



- i. Write the compound inequality making up the black region.
- ii. Write the inequalities making up the blue regions.
- iii. The country represented by this flag is the oldest democracy in Africa. What country is represented by the flag?
- iv. What countries surround this landlocked country?
- v. Replicate this flag using Desmos.