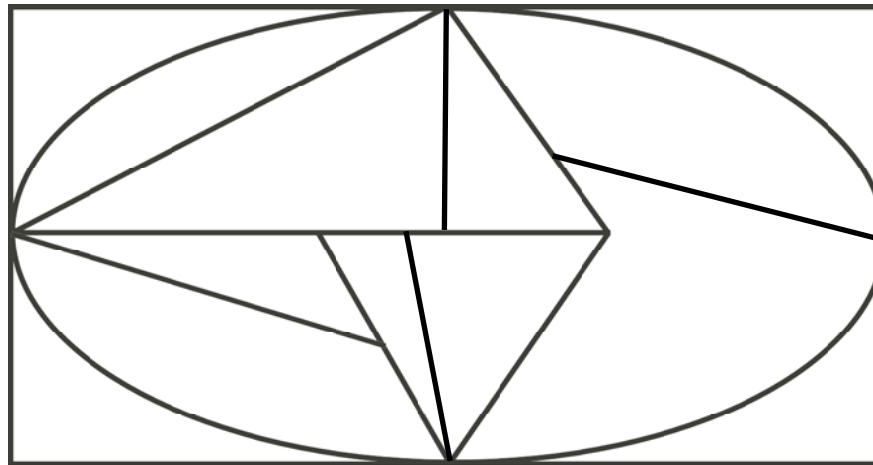


## Homework Problems

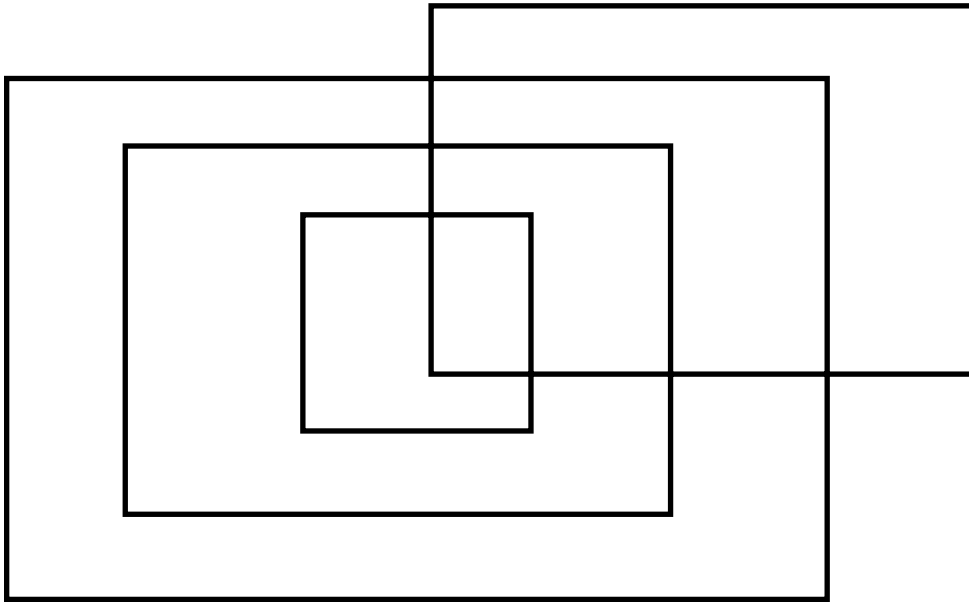
1. Find a vertex – circle it.
2. How many edges come out of the vertex you circled? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. What is the fewest number of colors that you could use so that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections before you could answer question 4? \_\_\_\_\_

### Problem 1



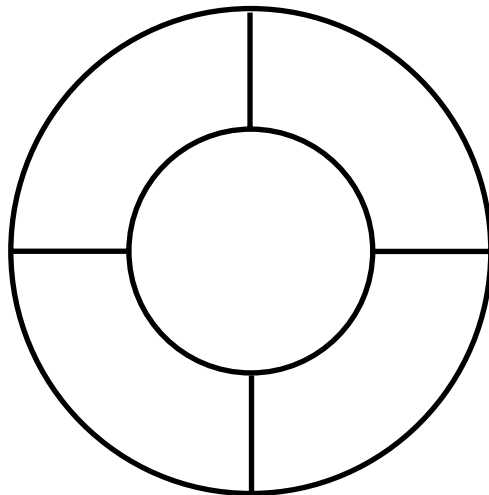
Name \_\_\_\_\_

### Problem 2



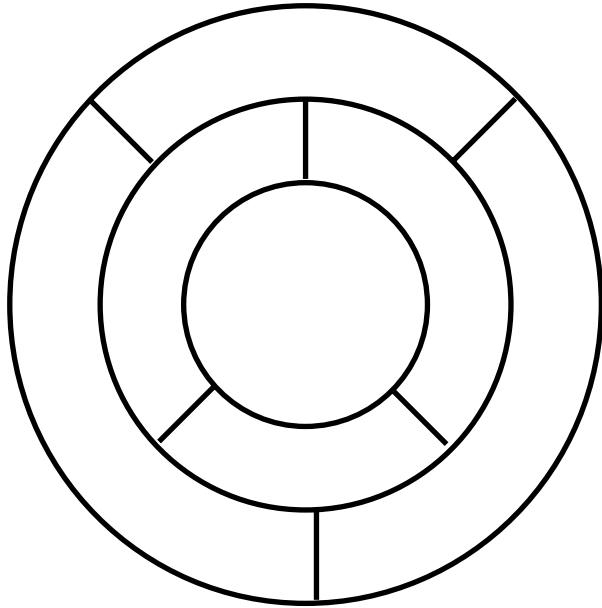
1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

### Problem 3



1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

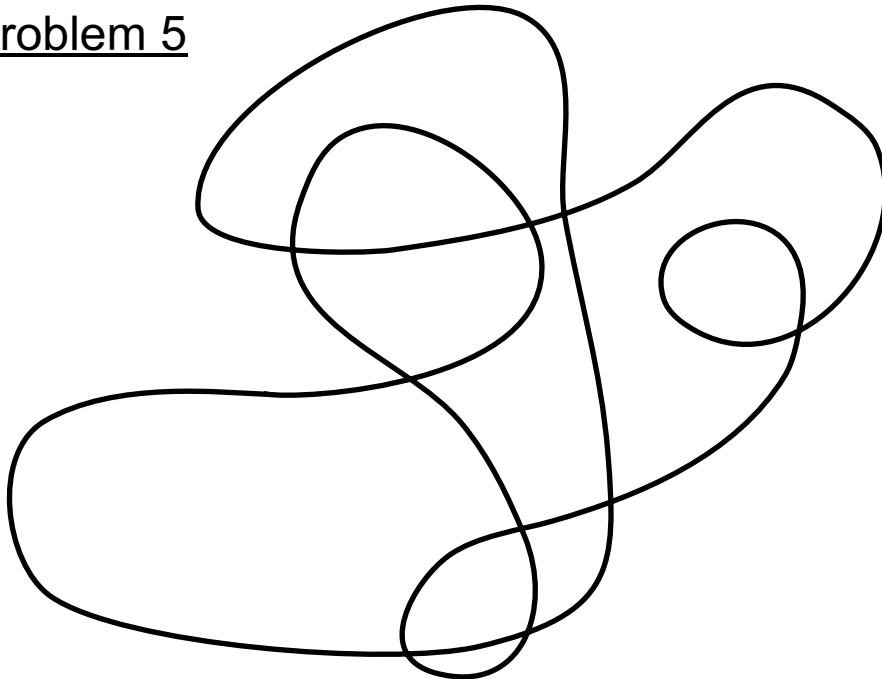
## Problem 4



Name \_\_\_\_\_

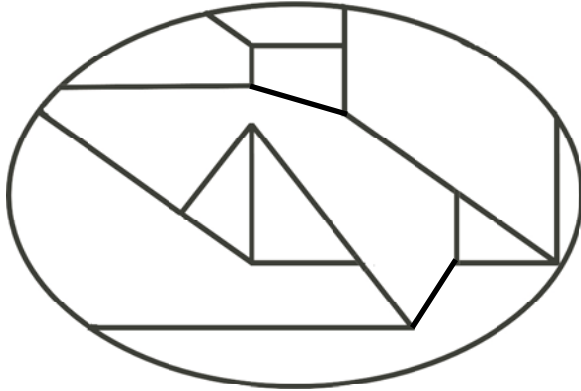
1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

## Problem 5



1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

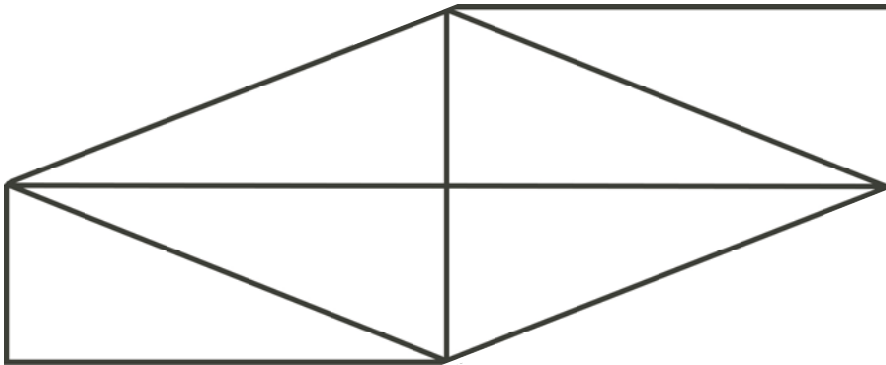
## Problem 6



Name \_\_\_\_\_

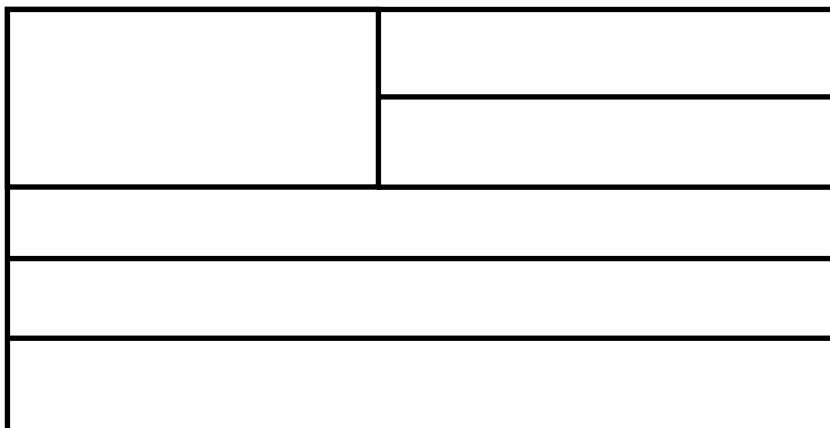
1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

## Problem 7



1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

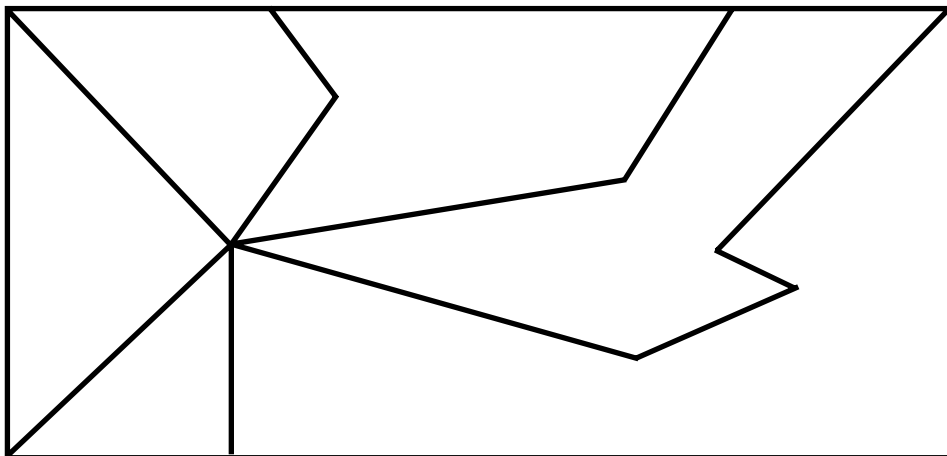
## Problem 8



Name \_\_\_\_\_

1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

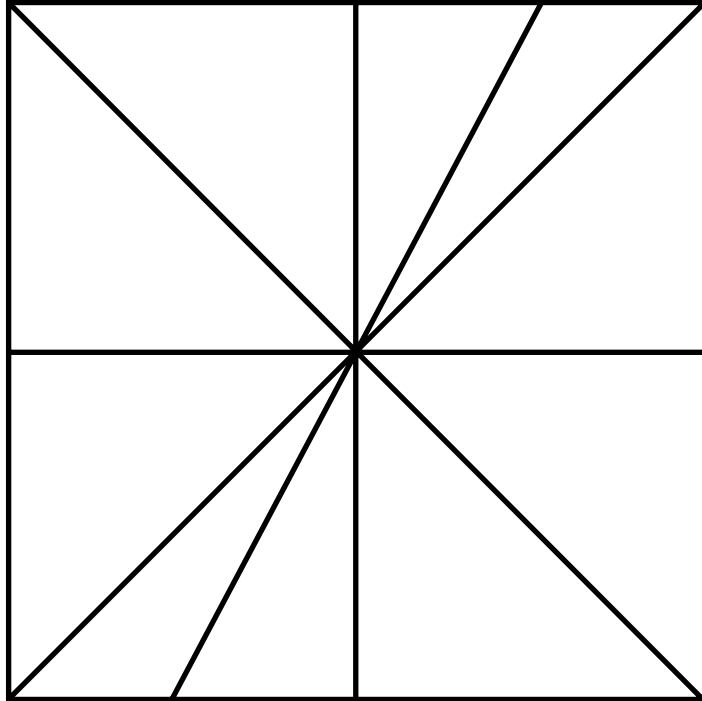
## Problem 9



1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

Problem 10

Name \_\_\_\_\_

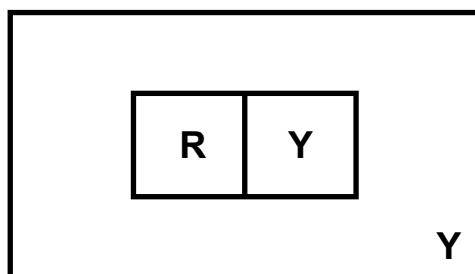
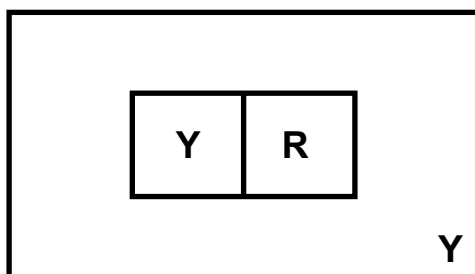
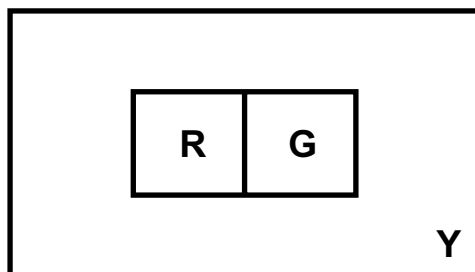
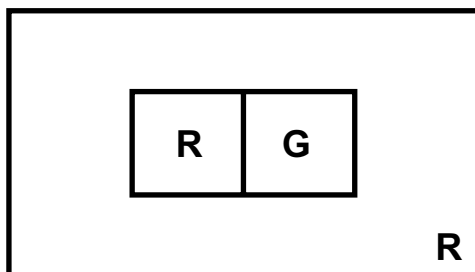


1. Circle a Vertex
2. How many edges come from the vertex? \_\_\_\_\_
3. Is the vertex odd or even? \_\_\_\_\_
4. How many colors are needed so that that no two sections that touch are the same color? \_\_\_\_\_
5. Did you need to color all the sections to answer question 4? \_\_\_\_\_

### Problem 11

Becky wants to color a design using the smallest number of colors but no two touching edges can be the same color. Which of these could be her design?

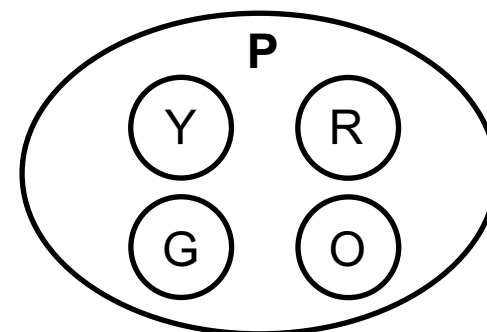
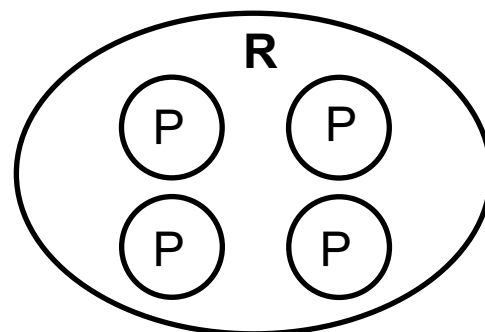
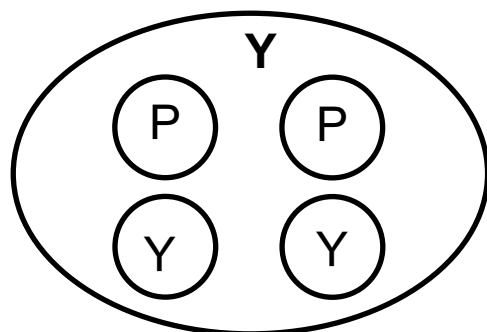
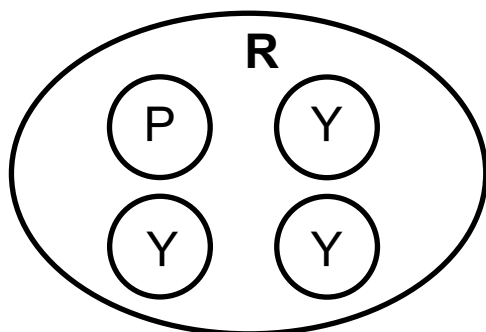
**R = Red**  
**Y = Yellow**  
**G = Green**



### Problem 12

David wants to color a design using the smallest number of colors but no two touching edges can be the same color. Which of these could be his design?

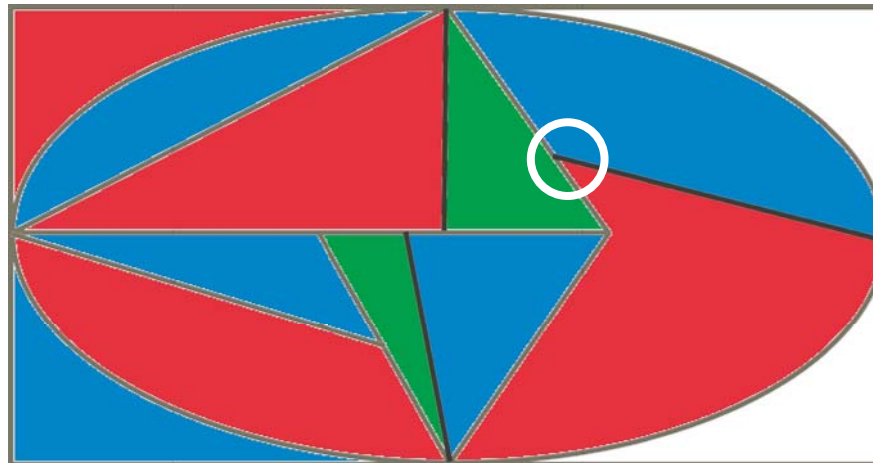
**R = Red**  
**Y = Yellow**  
**G = Green**  
**P = Purple**  
**O = Orange**



## Homework Problems

1. Find a vertex – circle it.
2. How many edges come out of the vertex you circled? 3
3. Is the vertex odd or even? Odd
4. What is the fewest number of colors that you could use so that no two sections that touch are the same color? 3
5. Did you need to color all the sections before you could answer question 4? Yes

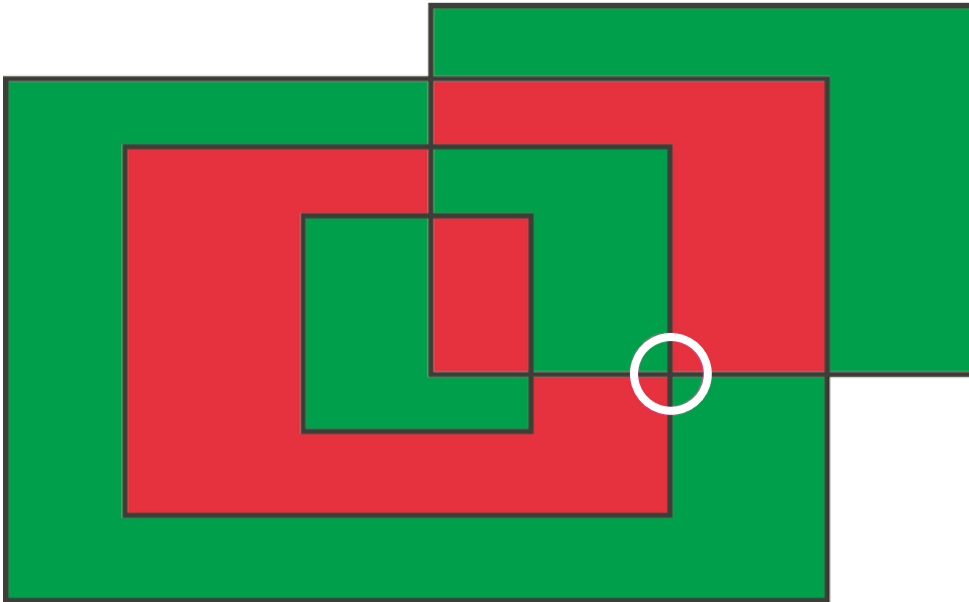
### Problem 1





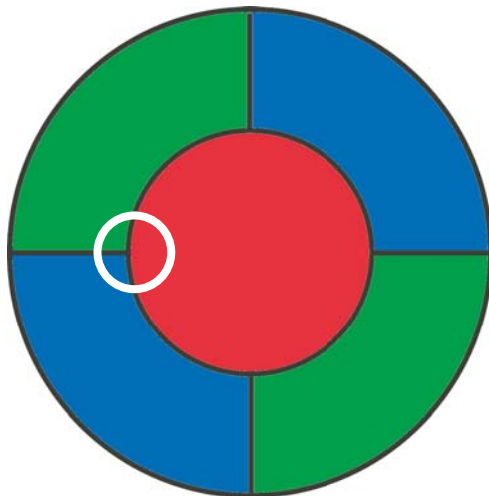
Name \_\_\_\_\_

## Problem 2



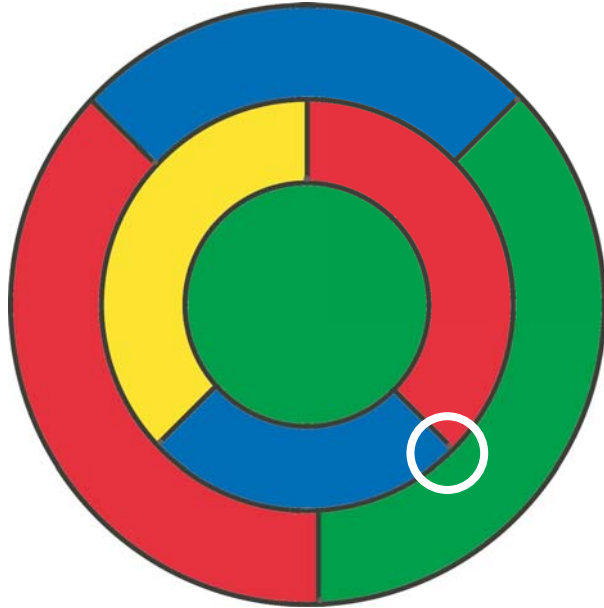
1. Circle a Vertex
2. How many edges come from the vertex? 4
3. Is the vertex odd or even? Even
4. How many colors are needed so that that no two sections that touch are the same color? 2
5. Did you need to color all the sections to answer question 4? No

## Problem 3



1. Circle a Vertex
2. How many edges come from the vertex? 3
3. Is the vertex odd or even? Odd
4. How many colors are needed so that that no two sections that touch are the same color? 3 or 4
5. Did you need to color all the sections to answer question 4? Yes

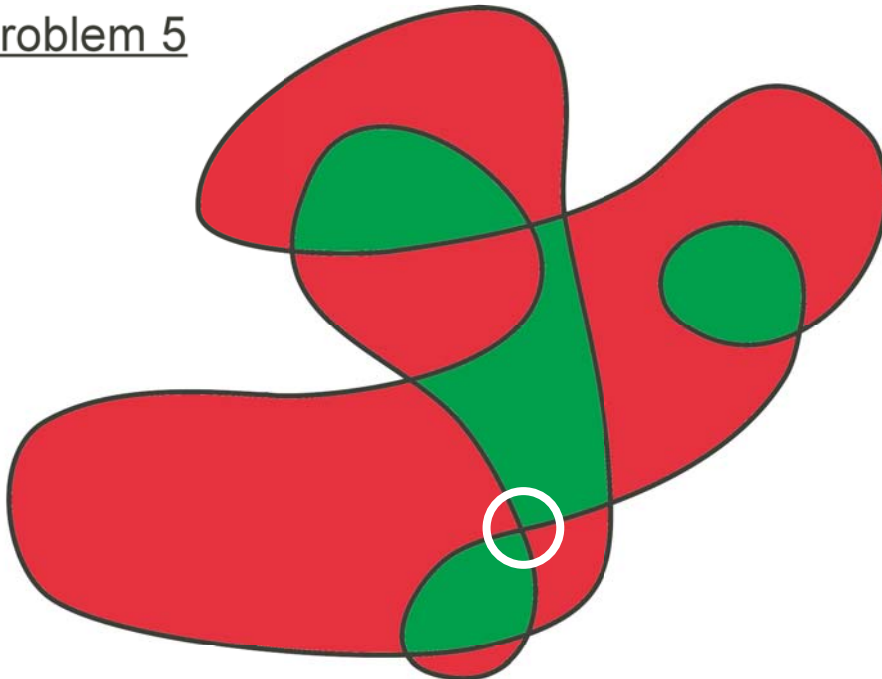
## Problem 4



Name \_\_\_\_\_

1. Circle a Vertex
2. How many edges come from the vertex? 3
3. Is the vertex odd or even? Odd
4. How many colors are needed so that that no two sections that touch are the same color? 3 or 4
5. Did you need to color all the sections to answer question 4? Yes

## Problem 5



1. Circle a Vertex
2. How many edges come from the vertex? 4
3. Is the vertex odd or even? Even
4. How many colors are needed so that that no two sections that touch are the same color? 2
5. Did you need to color all the sections to answer question 4? No

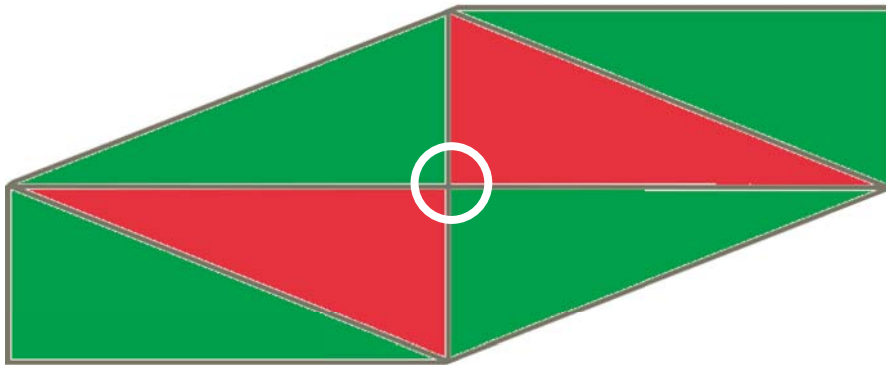
## Problem 6



Name \_\_\_\_\_

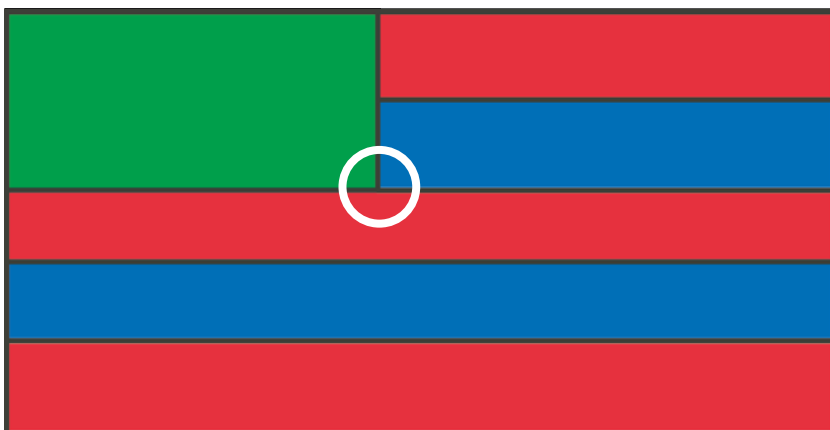
1. Circle a Vertex
2. How many edges come from the vertex? 3
3. Is the vertex odd or even? Odd
4. How many colors are needed so that that no two sections that touch are the same color? 3 or 4
5. Did you need to color all the sections to answer question 4? Yes

## Problem 7



1. Circle a Vertex
2. How many edges come from the vertex? 4
3. Is the vertex odd or even? Even
4. How many colors are needed so that that no two sections that touch are the same color? 2
5. Did you need to color all the sections to answer question 4? No

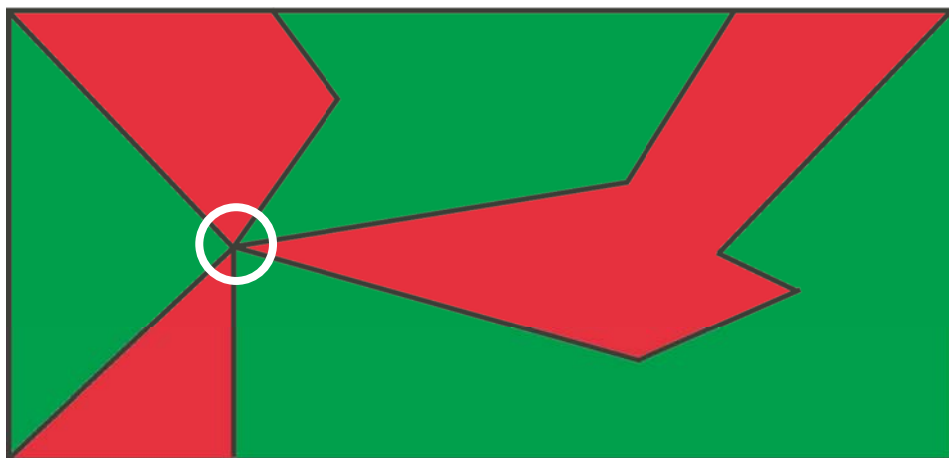
## Problem 8



Name \_\_\_\_\_

1. Circle a Vertex
2. How many edges come from the vertex? 3
3. Is the vertex odd or even? Odd
4. How many colors are needed so that that no two sections that touch are the same color? 3 or 4
5. Did you need to color all the sections to answer question 4? Yes

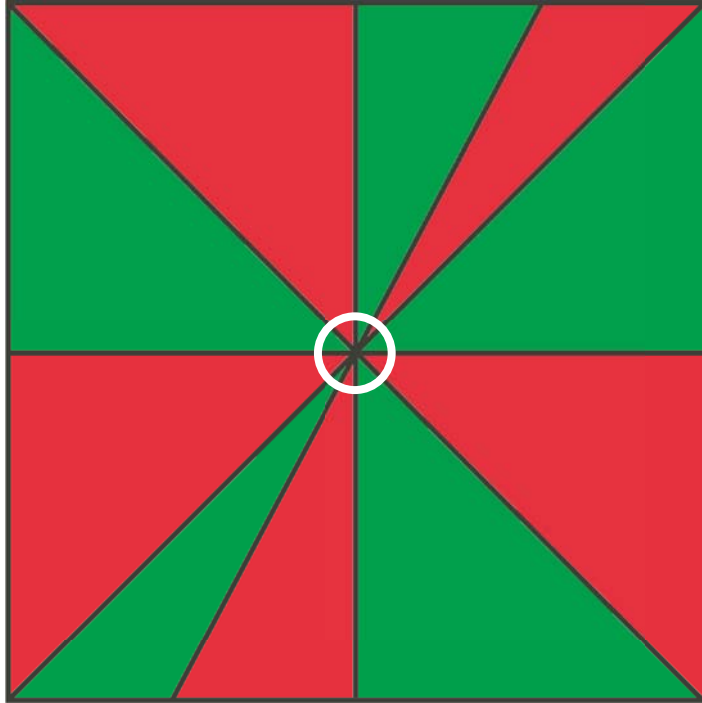
## Problem 9



1. Circle a Vertex
2. How many edges come from the vertex? 6
3. Is the vertex odd or even? Even
4. How many colors are needed so that that no two sections that touch are the same color? 2
5. Did you need to color all the sections to answer question 4? No

Problem 10

Name \_\_\_\_\_



**NOTE:**

Ignore places where edges meet the Perimeter.

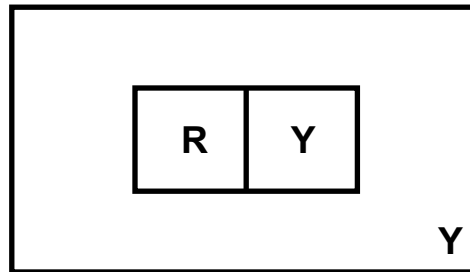
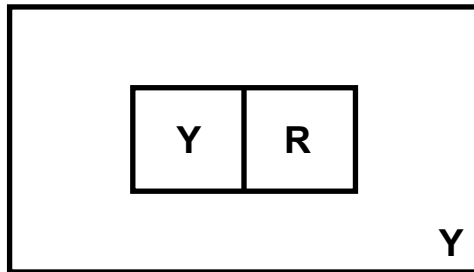
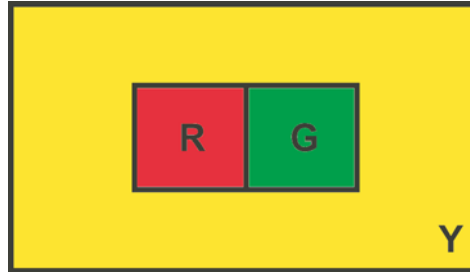
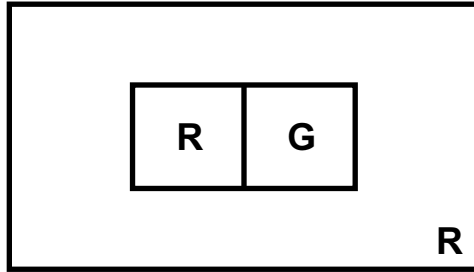
These are **NOT** vertices.

1. Circle a Vertex
2. How many edges come from the vertex? 10
3. Is the vertex odd or even? Even
4. How many colors are needed so that that no two sections that touch are the same color? 2
5. Did you need to color all the sections to answer question 4? No

## Problem 11

Becky wants to color a design using the smallest number of colors but no two touching edges can be the same color. Which of these could be her design?

R = Red  
Y = Yellow  
G = Green



Correct answers  
are in color

## Problem 12

David wants to color a design using the smallest number of colors but no two touching edges can be the same color. Which of these could be his design?

R = Red  
Y = Yellow  
G = Green  
P = Purple  
O = Orange

