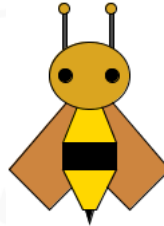


- 1 With value ranges from 0–255 for each component, how many total possible colours can be expressed using the RGB colour model? (3)
- 2 Without programming them, describe the colours represented by each of the following. (3)
 

**Note:** This question is only looking for general descriptions of the colours.

  - (a) `fill(255, 0, 255);`
  - (b) `fill(0, 255, 255);`
  - (c) `fill(125, 125, 125);`
- 3 Add colour to the Processing Bee from Assignment #1. (5)
 

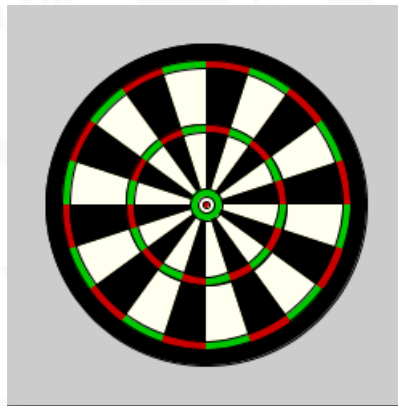
**Hint:** Yellow colours predominantly use red and green colour components, with blue being added to bring the colour closer to brown.



- 4 Why do you think the designers of the Processing language decided there was a need for both a grayscale `fill()` method as well an RGB model `fill()` method (which can easily be used to express various shades of gray)? (5)
- 5 Use the Processing reference for the `arc()` drawing method ([https://processing.org/reference/arc\\_.html](https://processing.org/reference/arc_.html)) to assist you in emulating the following image of a dartboard. (20)
 

**Warning:** Using only the knowledge we have currently about the Processing language, this is a pretty long, tedious task; however, once you've determined how to draw the individual pieces of the board, the remaining pieces are not difficult to program.

**Hint:** Because there are 20 different "wedges" in the dart board, each arc should be  $\frac{\pi}{10}$  radians wide. The value of  $\pi$  is accessible via the `PI` keyword in Processing.



- 6 Explain the iterative process you took in creating your dart board program. (10)