1. A study was conducted to determine factors which might influence shopping behaviour. The sample was taken a random from the population of the town of Dukefield, Greater Manchester, England. In the following table, we present the variables, choice of shopping centre, age, income and car ownership.

		Car Owner			
		Yes		No	
		Shopping Centre			
Age	Income	Near	Other	Near	Other
Young	Low	12	57	17	48
	High	3	24	2	3
Old	Low	18	53	51	105
	High	2	11	1	0

Produce a mosaic plot which tells the story of this data (determining the appropriate mosaic plot is part of the assignment). Use an appropriate choice of colour for the plot (looking at Cynthia Brewer's palettes may be useful).

2. Look at the following figures. The bottom figure contains the same pieces as the top one, but they have been rearranged.
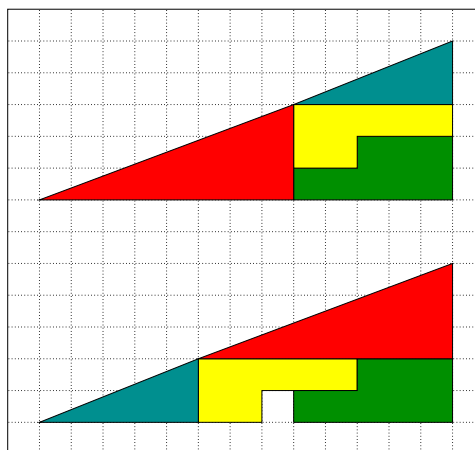
   (a) Explain where the extra square came from in the bottom figure.
   (b) Which aspect of graphical perception is being used to fool you here?

3. Choose 7 colours which can be used to draw lines and points on a white background. The colours should be easy to tell apart and have high contrast with the background. Make a similar choice of colours, but this time for a black background. Explain how you made your choices. [There is no "right" answer to this question. You must use judgement and creativity.]

   Show your colour selections at work on both white and black backgrounds (most devices have an option which lets you set the colour of the plot background).