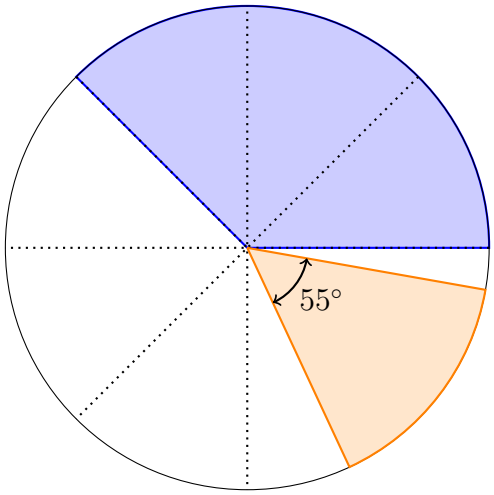
11.6 Classwork: Data visualization with pie charts

1. The *pie chart* below shows the proportion of two subsets of a population, one represented in blue and one in orange. Dotted lines divide the circle in eight equal sectors for reference.

   (a) Estimate the area of the blue sector as a fraction of the circle and as a decimal.

   (b) The central angle of the orange sector measures 55°. Find the fraction of circle's area shaded orange as a fraction and a decimal.

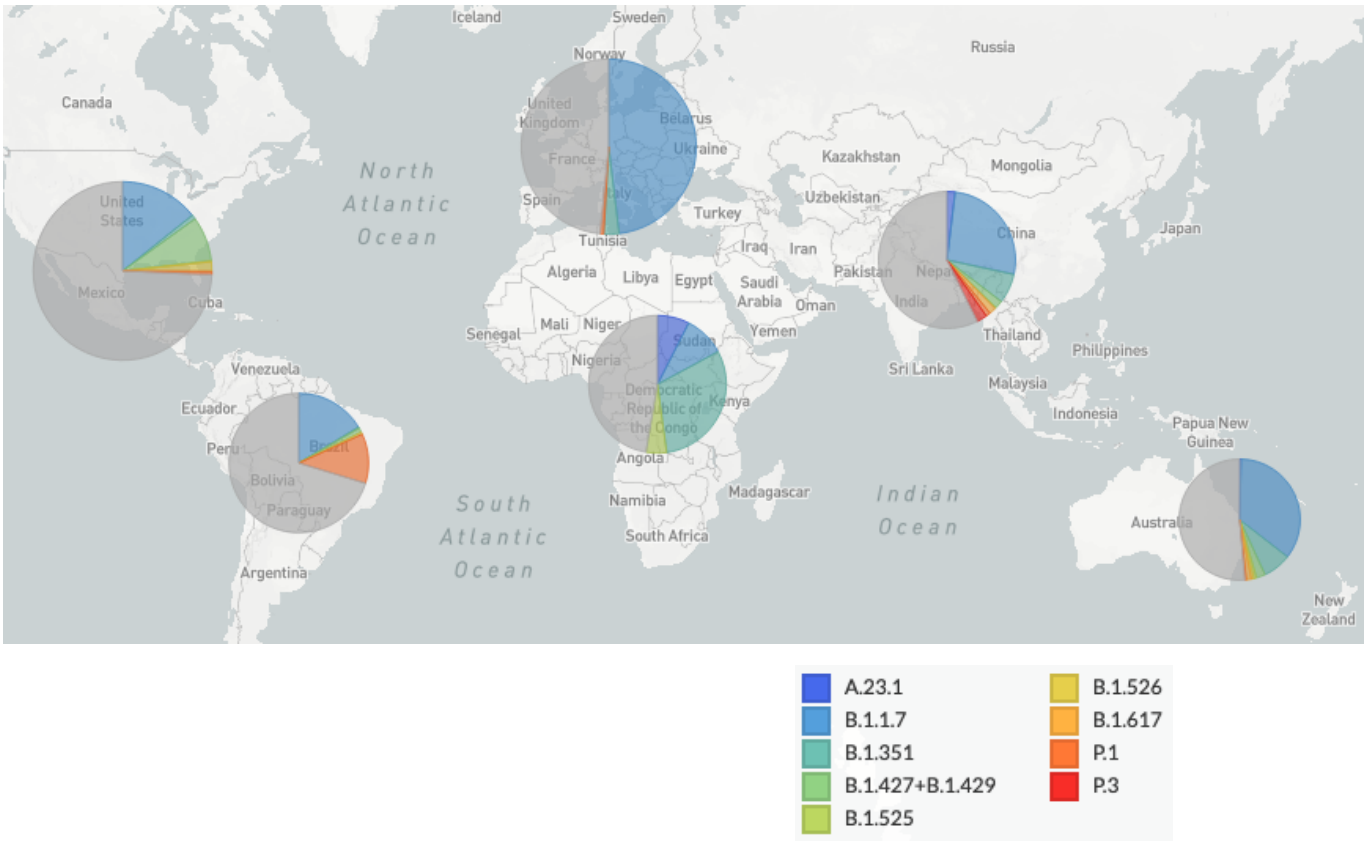


2. We use circle sectors (pie charts) to communicate. This map shows the most important of the 3991 coronavirus variants as they evolve across the world.

   (a) In Europe, estimate the proportion of covid-19 identified as B.1.1.7 (light blue).

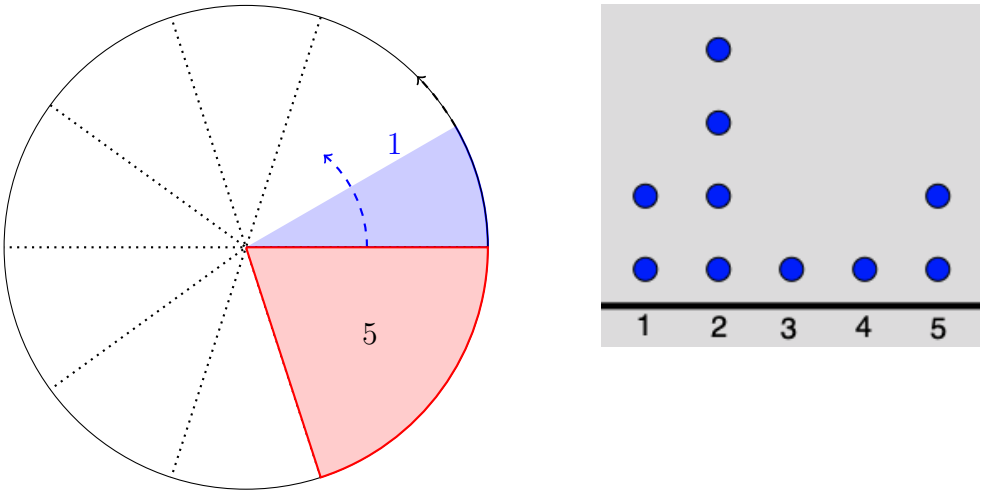
   (b) In South America, which is more prevalent B.1.1.7 or P.1 (light orange)?

   (c) In North America, what proportion of samples remain "unassigned" (gray)?



3. Ten values from one to five are displayed as a dot plot below on the right.

   The data is to be represented as a *pie chart*. The red sector has been drawn to represent data with value equalling five. (Dotted lines divide the circle in ten equal sectors for reference.)



   (a) Shade the appropriate portion of the pie chart in blue to represent the data with value equalling one.

   (b) Complete the rest of the pie chart using other colors to mark sectors for the data

equalling two, three, and four.