Microplastics in the Antarctic

During a recent expedition to the Antarctic, research scientists collected water samples and analyzed them for the presence of microplastics. The types of microplastics and quantity of each are included in the table below. Two different regions of Antarctica were chosen, Marion Cove (MC) and Borgen Bay (BB). Five samples were collected in each region. Your job is to help the research scientist analyze the data in Table 1 and help represent their findings in graph form.

Table 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fjord** | **Site ID** | **Fibers** | **Fragments** |  | **Beads** |
| **Marian Cove, King George Island** | MC1 surface | 15 | 21 |  | 0 |
| MC1 benthic | 9 | 22 |  | 0 |
| MC2 surface | 11 | 144 |  | 0 |
| MC2 benthic | 16 | 56 |  | 0 |
| MC3 surface | 8 | 26 |  | 0 |
| MC3 benthic | 7 | 21 |  | 2 |
| MC4 surface | 16 | 152 |  | 1 |
| MC4 benthic | 5 | 37 |  | 0 |
| MC5 surface | 21 | 168 |  | 0 |
| MC5 benthic | 13 | 36 |  | 0 |
| **Börgen Bay, Anvers Island** | BB1 surface | 7 | 21 |  | 0 |
| BB1 benthic | 6 | 9 |  | 0 |
| BB2 surface | 14 | 15 |  | 1 |
| BB2 benthic | 9 | 6 |  | 0 |
| BB3 surface | 20 | 19 |  | 0 |
| BB3 benthic | 8 | 4 |  | 0 |
| BB4 surface | 17 | 34 |  | 0 |
| BB4 benthic | 6 | 8 |  | 0 |
| BB5 surface | 11 | 17 |  | 0 |
| BB5 benthic | 4 | 11 |  | 0 |
|  |  |  |  |  |  |

1. Analyze the data to compare the quantity and type of microplastics found between Marian Cove and Borgen Bay. In the space below create a bar graph representing the total fibers, fragments, and beads at MC and BB. Be sure to label the axes with the dependent and independent variables.
2. Create a line graph comparing the total number of microplastics at each sampling site.
3. Create a creative pie chart accurately depicting the percentage of each microplastics found in Antarctica.