```
type State = {
  name: string // Ohio, Michigan
  abbr: string // OH, MI
  population: number,
  cities: Array<string>
}
const allStates: Array<State> = [_____];
```

Use JS array functions sort(), splice(), slice(), some(), every(), map(), filter(), flatmap(), reduce() etc. to answer the following questions

1. Collect all states whose name is 8 characters or longer
   Answer:
   // Option 1: use "traditional" function
   ```
   function checkEight(st: State): boolean {
      return st.name.length >= 8;
   }
   const selectedStates = allSates.filter(checkEight);
   ```

   // Option 2: use arrow function (Desired answer)
   ```
   const selectedStates = allStates.filter((what:State) => what.name.length >= 8)
   ```

2. Collect all states with 500 cities or fewer

3. List all the state names with 500 cities or fewer

4. List the top 5 states based on population

5. List all cities whose name is 10 characters or longer

6. List all the states with short city names (4 character or fewer)

7. List the top 5 states based on the number of cities

8. What is the largest population across all the states? If there is a tie, pick the first one you found

9. What is the total population from all the states?

10. What is the longest city name?

11. Make your own query here: