1.Given a dictionary of words and their lengths, find the word with the longest length.

```
word_lengths = {"apple": 5, "banana": 6, "cherry": 6, "date": 4}
```

2.Define two sets, one containing even numbers from 1 to 10, and another containing multiples of 3 from 1 to 10. Find their intersection.

3. Create a dictionary representing a product catalog with product names and their prices. Add a new product and its price to the catalog.

```
product_catalog = {"ProductA": 10, "ProductB": 20, "ProductC": 30}
```

4. Create a dictionary of your favorite movies and their release years. Print the movies released before 2000.

```
favorite_movies = {"MovieA": 1995, "MovieB": 2005, "MovieC": 1987}
```

5.Create a dictionary representing a company's sales data. Each key should be a month (e.g., "January") and the value should be a dictionary with product names as keys and their corresponding sales amounts. Calculate the total sales for each product across all months.

```
sales_data = { "January": {"ProductA": 100, "ProductB": 200,
"ProductC": 150}, "February": {"ProductA": 120, "ProductB": 220,
"ProductC": 170} }
```

6.Create two sets, one representing students who passed an exam and another representing students who passed a project. Find the students who passed both the exam and the project.

```
exam_passed = {"Alice", "Bob", "Charlie", "David"} project_passed =
{"Charlie", "David", "Eve", "Frank"}
```

7. Find the number of uppercase letters, lower case letters, digits in a string