# Homework 4: Dictionaries and Sets

## 1. Create a Dictionary from Two Lists

Given two lists:  
```python  
keys = ["name", "age", "city"]  
values = ["Alice", 25, "New York"]  
```  
Create a dictionary mapping keys to values using a built-in function.

## 2. Find the Maximum Value in a Dictionary

Given the dictionary:  
```python  
scores = {"Alice": 85, "Bob": 92, "Charlie": 78}  
```  
Find the name of the student with the highest score using a single built-in function.

## 3. Find the Union of Two Sets

Given two sets:  
```python  
A = {1, 2, 3, 4}  
B = {3, 4, 5, 6}  
```  
Find the union of these sets using a built-in set method.

## 4. Check if a Key Exists in a Dictionary

Given the dictionary:  
```python  
person = {"name": "John", "age": 30, "city": "London"}  
```  
Check if `"age"` exists in the dictionary without using a loop.

## 5. Get Unique Values from a Dictionary

Given the dictionary:  
```python  
grades = {"Alice": "A", "Bob": "B", "Charlie": "A", "David": "C"}  
```  
Extract a set of all unique grades using a single line of code.

## 6. Convert a List of Tuples into a Dictionary

Given a list of tuples:  
```python  
pairs = [("one", 1), ("two", 2), ("three", 3)]  
```  
Convert it into a dictionary using a built-in function.

## 7. Find the Minimum Value in a Dictionary

Given the dictionary:  
```python  
temperatures = {"Monday": 20, "Tuesday": 15, "Wednesday": 22}  
```  
Find the day with the lowest temperature using a single built-in function.

## 8. Get the Difference of Two Sets

Given two sets:  
```python  
X = {10, 20, 30, 40}  
Y = {30, 40, 50, 60}  
```  
Find the elements that are in `X` but not in `Y` using a set method.