1. Validation Question

Question:
Write a Python function `validate_contact(contact)` to validate a string that can represent either a telephone number or a mobile number.

- Telephone numbers must have 8 digits and start with '2', '3', or '4'.
- Mobile numbers must have 10 digits and start with '7', '8', or '9'.
  Return `True` if valid, `False` otherwise.

2. Nth Series Question

Question:
Write a program to generate the first N terms of a series where each term is the product of the nth prime number and the nth perfect number.
For example:

- Prime numbers: 2, 3, 5, 7, ...
- Perfect numbers: 6, 28, 496, ...
  For N=3, the series is: (2 times 6 = 12), (3 times 28 = 84), (5 times 496 = 2480).

3. HTML Tag Parsing

Question:
Write a Python function `parse_html(html_string)` to parse a string containing nested HTML tags without using any external libraries. Return a dictionary with tag names as keys and a count of their occurrences as values.
Example input:

```
"<div><p>Hello</p><p>World</p></div>"
```

Output:

```
{'div': 1, 'p': 2}
```

4. Pattern Question

Question:
Write a program to generate the following pattern for an input number N:
Example (for (N=5)):

```
A
B B
```

```
C C C
D D D D
E E E E E
```

The pattern should continue alphabetically and incrementally with each row.

5. Dictionaries, Strings, and Lists Combination

Question:
Given a dictionary where keys are strings representing stock names, and values are lists of daily closing prices, write a function `average_stock_prices(data)` to calculate the average price for each stock. Return a dictionary with stock names as keys and their average prices as values.
Example input:

```
{'AAPL': [150, 152, 148], 'TSLA': [650, 652, 645]}
```

Output:

```
{'AAPL': 150, 'TSLA': 649}
```

6. Stock Exchange List Analysis

Question:
You are given a list of tuples where each tuple contains a stock symbol and its daily high price, e.g., `[('AAPL', 152), ('TSLA', 652), ('GOOG', 2900)]`. Write a program to find the stock with the highest price and return its symbol. If two stocks have the same highest price, return a list of all such stock symbols.
Example input:

```
[('AAPL', 152), ('TSLA', 652), ('GOOG', 2900), ('MSFT', 2900)]
```

Output:

```
['GOOG', 'MSFT']
```