

1. **How would you use list comprehension to filter out even numbers from a given list of integers?**  

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
odd_numbers = [x for x in numbers if x % 2 != 0]
print(odd_numbers)
```
2. **write a list comprehension to generate a list of squares of numbers from 1 to 10?**  

```
squares = [x**2 for x in range(1, 11)]
print(squares)
```
3. **How can you use list comprehension to flatten a list of lists into a single list?**  

```
list_of_lists = [[1, 2, 3], [4, 5], [6, 7, 8, 9]]
flat_list = [item for sublist in list_of_lists for item in sublist]
print(flat_list)
```
4. **use list comprehension to filter out strings that start with a specific letter (eg 'a') from a given list of strings?**  

```
strings = ['apple', 'banana', 'avocado', 'cherry', 'apricot']
filtered_strings = [s for s in strings if not s.startswith('a')]
print(filtered_strings)
```
5. **how would you create a list of tuples where each tuple contains a number and its square for numbers from 1 to 5 using list comprehension?**  

```
number_square_tuples = [(x, x**2) for x in range(1, 6)]
print(number_square_tuples)
```