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## Day 17 - Practice Exercise Questions (3 Questions)

### 1. Recursive Count of Vowels

Write a recursive function `count_vowels(s)` that counts the number of vowels (a, e, i, o, u) in a given string `s`.

Example:

```
print(count_vowels("hello")) # Output: 2 (e, o)
```

```
print(count_vowels("recursion")) # Output: 5 (e, u, i, o, i)
```

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### 2. Recursive Palindrome Check

Write a recursive function `is_palindrome(s)` that checks whether a given string `s` is a palindrome (reads the same forward and backward).

Example:

```
print(is_palindrome("radar")) # Output: True
```

```
print(is_palindrome("hello")) # Output: False
```

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### 3. Recursive Power Calculation

Write a recursive function `power(base, exp)` that calculates the power of a given number `base` raised to `exp` (exponent).

Example:

```
print(power(2, 3)) # Output: 8 (2^3 = 2 * 2 * 2)
```

```
print(power(5, 2)) # Output: 25 (5^2 = 5 * 5)
```

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