1. The output will be "1 2 8". Here, the function `func` takes three arguments a, b, and c, where b and c have default values 6 and 8 respectively. When the function is called with arguments `func(1, 2)`, it assigns the value 1 to the first parameter a and the value 2 to the second parameter b. Since no value is passed for c, it takes the default value 8.

2. The output will be "1 2 3". Here, the function `func` takes three arguments a, b, and c, where c has a default value of 5. When the function is called with arguments `func(1, c=3, b=2)`, it assigns the value 1 to the first parameter a, 2 to the second parameter b, and 3 to the third parameter c.

3. The output will be "1 (2, 3)". Here, the function `func` takes one required argument `a` and any number of positional arguments as a tuple using `\*pargs` syntax. When the function is called with arguments `func(1, 2, 3)`, it assigns the value 1 to the first parameter `a` and assigns (2, 3) to the tuple `pargs`.

4. The output will be "1 {'c': 3, 'b': 2}". Here, the function `func` takes one required argument `a` and any number of keyword arguments as a dictionary using `\*\*kargs` syntax. When the function is called with arguments `func(a=1, c=3, b=2)`, it assigns the value 1 to the first parameter `a` and assigns {'c': 3, 'b': 2} to the dictionary `kargs`.

5. The output will be "1 5 6 5". Here, the function `func` takes four arguments a, b, c, and d. When the function is called with arguments `func(1, \*(5, 6))`, the first parameter `a` is assigned the value 1, and the remaining positional arguments (5, 6) are assigned to b and c, respectively. Since there is no value assigned for d, it takes the default value 5.

6. The output will be "1 [&#39;x&#39;] {'a': 'y'} ". Here, the function `func` takes three arguments a, b, and c. When the function is called with arguments `func(l, m, n)`, it assigns the value of l (which is 1) to a, and the list `[1]` to the variable b, and the dictionary `{'a':0}` to the variable c. Inside the function, the value of `a` is changed to 2, the value of the first element of the list `m` is changed to `'x'`, and the value of the dictionary `n` with the key `'a'` is changed to `'y'`. When the variables `l`, `m`, and `n` are printed after calling the function, the value of `l` is unchanged, but the value of the first element of the list `m` is changed to `'x'`, and the value of the dictionary `n` with the key `'a'` is changed to `'y'`.