

JavaScript Function Types Assignment

◆ Part 1: Identify the Function Type

Q1. Identify the type of function used below:

js

CopyEdit

```
const greet = function(name) {  
  return "Hello " + name;  
};
```

Q2. What kind of function is this?

js

CopyEdit

```
function add(a, b) {  
  return a + b;  
}
```

Q3. Identify this function type:

js

CopyEdit

```
const multiply = (x, y) => x * y;
```

Q4. What function type is used here?

js

CopyEdit

```
(function () {  
  console.log("IIFE executed");  
})();
```

◆ Part 2: Code Output and Explanation

Q5.

js

CopyEdit

```
console.log(square(4));  
  
function square(n) {  
    return n * n;  
}
```

Q6.

js

CopyEdit

```
console.log(typeof sum);  
  
var sum = function(a, b) {  
    return a + b;  
};
```

Q7.

js

CopyEdit

```
(function(x){  
    return (function(y){  
        console.log(x);  
    })(2);  
})(1);
```

◆ Part 3: Practical Tasks

Q8. Write a named function `greetUser` that takes a name and returns a greeting string.

Q9. Create an arrow function `double` that returns twice the input.

Q10. Write an IIFE that logs "Assignment started" when run.

Q11. Create a higher-order function `operate` that takes two numbers and a function (like `add` or `subtract`) and returns the result.

Q12. Write a function that returns another function to multiply a number.

✅ Answers

✓ Part 1

- Q1: **Function Expression**
 - Q2: **Function Declaration**
 - Q3: **Arrow Function**
 - Q4: **IIFE (Immediately Invoked Function Expression)**
-

✓ Part 2

- Q5: 16
 - Function declarations are hoisted.
 - Q6: "undefined"
 - `sum` is hoisted as a variable, but not the function.
 - Q7: 1
 - Closure captures the outer variable `x`.
-

✓ Part 3

Q8

js

CopyEdit

```
function greetUser(name) {
```

```
    return "Hello " + name;
}
```

Q9

js

CopyEdit

```
const double = n => n * 2;
```

Q10

js

CopyEdit

```
(function () {
    console.log("Assignment started");
})();
```

Q11

js

CopyEdit

```
function operate(a, b, fn) {
    return fn(a, b);
}

function add(x, y) { return x + y; }
function subtract(x, y) { return x - y; }
```

Q12

js

CopyEdit

```
function multiplier(x) {
    return function(y) {
        return x * y;
    };
}
```

