

### Problem 1

```
void main1() { if (true) {  
    int number = 42;  
}  
    print(number);  
}  
main1();
```

**Output:Undefined**

### Problem 2

```
void main2() { int value;  
    if (false) { value = 100;  
    }  
    print(value);  
}  
main2();
```

**Output:Undefined**

### Problem 3

```
int count = 5; void main3() { int count = 10; print(count);  
}  
main3();
```

**Output:10**

#### Problem 4

```
void main4() {  
    for (int i = 0; i < 3; i++) { String message = "Loop $i"; print(message);  
    }  
    print(message);  
}  
main4();
```

**Output: Loop \$0**

**Loop \$1**

**Loop \$2**

**Undefined**

#### Problem 5

```
void processNumber(int num) { num = num + 1;  
}  
void main5() { print(num); int x = 5;  
    processNumber(x); print(x);  
}  
main5();
```

**Output:Undefined**

#### Problem 6

```
void main6() {  
    bool isActive = false; if (true) {  
        bool isActive = true; print(isActive);
```

```
}  
print(isActive);  
}  
main6();
```

**Output:false**

Problem 7

```
void main7() { int result = 0;  
{  
int result = 50; print(result);  
}  
print(result);  
}  
main7();
```

**Output:0**

Problem 8

```
void main8() { if (true) {  
String name = "Alice";  
} else {  
String name = "Bob";  
}  
print(name);  
}  
main8();
```

**Output:Undefined**

### Problem 9

```
double price = 9.99;
```

```
void applyDiscount() { price = price * 0.9;  
}
```

```
void main9() {  
    double price = 20.00; applyDiscount(); print(price);  
}  
main9();
```

**Output:20.00**

```
Problem 10 void main10() { while (true) {  
    int counter = 0; counter++; print(counter); break;  
}  
print(counter);  
}  
main10();
```

**Output:Undefined**

### Problem 11

```
void updateValue(int val) { val = 50;  
}  
void main11() { int x = 10;  
    if (x > 0) { updateValue(x); int y = x + 5;  
}
```

```
print(y);  
}  
main11();
```

**Output:15**

Problem 12

```
String status = "Idle"; void toggleStatus() { String status = "Active";  
}
```

```
void main12() { toggleStatus(); print(status);  
}  
main12();
```

**Output:Idle**

Problem 13 void main13() { bool flag = false;

```
void innerFunc() { flag = true;
```

```
int count = 10;
```

```
}
```

```
innerFunc(); print(count);
```

```
}
```

```
main13();
```

**Output:undefined**

Problem 14

```
void compute(int num) { if (num > 0) {  
String message = "Positive";  
}  
}  
void main14() { compute(5); print(message);  
}  
main14()
```

**Output:Undefined**

Problem 15

```
int score = 100; void resetScore() { score = 0;  
}  
void adjustScore() { int score = 50; resetScore();  
}  
void main15() { adjustScore(); print(score);  
}  
main15();
```

Output:100

Problem 16

```
void main16() {  
double average = 0.0;  
{  
int count = 3;  
{  
double total = 15.0; average = total / count;  
}
```

```
print(total);  
}
```

Output:Function did not called

#### Problem 17

```
void increment(int value) { value += 1;  
}  
  
void main17() { int sum = 0;  
for (int i = 0; i < 3; i++) { increment(i);  
if (i == 2) {  
bool done = true; sum += i;  
}  
}  
print(done);  
}  
main17();
```

**Output:Undefined**