

Assignment 1

Output :

1. Problem 1

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

2. Problem 2

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

3. Problem 3

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

4. Problem 4

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

```
print(message); }
```

```
print(message); }
```

```
main4(); = Error
```

5. Problem 5

```
void processNumber(int num)
```

```
{ num = num + 1; }
```

```
void main5() {
```

```
print(num);
```

```
int x = 5; processNumber(x);
```

```
print(x); }
```

```
main5();= Error
```

6. Problem 6

```
void main6() {
```

```
bool isActive = false;
```

```
if (true) { bool isActive = true;
```

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

```
main6();= True
```

```
=False
```

7. Problem 7

```
void main7() {
```

```
int result = 0; {
```

```
int result = 50;
```

```
print(result); }
```

```
print(result); }
```

```
main7();= 50
```

=0

8. Problem 8

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

9. Problem 9

```
double price = 9.99;  
void applyDiscount() {  
    price = price * 0.9; }  
void main9() {  
    double price = 20.00;  
    applyDiscount();  
    print(price); }  
main9(); =20.0
```

10. Problem 10

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

```
print(counter); }
```

```
main10(); =Error
```

11. 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(); =Error
```

12. Problem 12

```
String status = "Idle";
```

```
void toggleStatus() {
```

```
String status = "Active"; }
```

```
void main12() {
```

```
toggleStatus();
```

```
print(status); }
```

```
main12();=Idle
```

13. Problem 13

```
void main13() {
```

```
bool flag = false;
```

```
void innerFunc() {
```

```
flag = true;
```

```
int count = 10; }
```

```
innerFunc();  
print(count); }  
main13();=Error
```

14. Problem 14

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

15. int score = 100;

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

16. void main16() {

```
    double average = 0.0;  
    { int count = 3; {  
        double total = 15.0;
```

```
average = total / count; }
```

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

```
print(average); }=Error
```

17. 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();=Error
```