

Lexical Errors (Errors are highlighted in RED):

```
program
  int a#, b, c;
  double d;
  begin
    a = 2*(55+200);
    b = (31 + 4) * 50;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/ 2)*4 + 2^3;
  end
```

---PROGRAM OUTPUT---

Declaration Error: id is not valid

```
program
  int a, b, c;
  double d;
  ben
    a = 2*(55+200);
    b = (31 + 4) * 50;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/ 2)*4 + 2^3;
  end
```

---PROGRAM OUTPUT---

Declarations Error: Unexpected word

Syntax Errors:

```
program
  int a, b, c;
  double d;
  begin
    a = 2*(55+200);
    b (31 + 4) * 50;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/ 2)*4 + 2^3;
  end
```

---PROGRAM OUTPUT---

assign_st Error: equal operator not found

```
program
  int a, b, c;
  double d;
  begin
  begin
    a = 2*(55+200);
    b (31 + 4) * 50;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/ 2)*4 + 2^3;
  end
```

---PROGRAM OUTPUT---

Statement Error: invalid statement

Semantic Errors:

```
program
  int a, b, c;
  double d;
  begin
    print z;
  end
```

---PROGRAM OUTPUT---

print_st Error: symbol not found

```
program
  int a, b, c;
  double d;
  begin
    a = 5;
    z = a;
  end
```

---PROGRAM OUTPUT---

assign_st Error: symbol not found

Additional Programs:

```
program
  int a,b,c,d;
  double d;
  begin
    a = 2*( 55+200);
    b = (31+4)*50;
    d = 5 + 2*7^3;
    c = b;
    print c;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/2)*4+2^3;
  end
```

---PROGRAM OUTPUT---

1750
510
1750
510
616

---SYMBOL TABLE---

i	id	type	value
0	a	int	510
1	b	int	1750
2	c	int	510
3	d	int	691
4	d	double	1787898840

```
program
  int a, b, c;
  double d;
  begin
    a = 2*(55+200);
    b = (31 + 4) * 50;
    c = a;
    print a;
    print b;
    print c;
    print (2+300/ 2)*4 + 2^3;
  end
```

---PROGRAM OUTPUT---

510
1750
510
616

---SYMBOL TABLE---

i	id	type	value
0	a	int	510
1	b	int	1750
2	c	int	510
3	d	double	1304177624

```
program
  int a,b,      c      ,      d;
  double d;
  begin
    a =      2*( 55+200);
    c = a;
    print      a;
    print b;
    print c;
    print (2+      300/      2)*4+2^3;
  end
```

---PROGRAM OUTPUT---

510
1304177624
510
616

---SYMBOL TABLE---

i	id	type	value
0	a	int	510
1	b	int	1304177624
2	c	int	510
3	d	int	1304177624
4	d	double	1304177624

```
program
  int a,b,c;
  double d;
  begin
    d = 5 + 2*7^3;
    print d;
  end
```

---PROGRAM OUTPUT---

691

---SYMBOL TABLE---

i	id	type	value
0	a	int	1307388888
1	b	int	1307388888
2	c	int	1307388888
3	d	double	691

```

program
    int a,b,c;
    double d;
    begin
        d = 5 + 2*7^3
        print d;
    end

---PROGRAM OUTPUT---
assign_st Error: semicolon not found

```

```

program
    int ,b,c;
    double d;
    begin
        d = 5 + 2*7^3
        print d;
    end

---PROGRAM OUTPUT---
Declaration Error: id is not valid

```

```

progr
    int a,b,c;
    double d;
    begin
        d = 5 + 2*7^3
        print d;
    end

---PROGRAM OUTPUT---
startProgram Error: No program found

```

```

program
    int a,b,c;
    double d;
    begin

    end

---PROGRAM OUTPUT---

---SYMBOL TABLE---
i      id      type      value
0      a      int      1307388888
1      b      int      1307388888
2      c      int      1307388888
3      d      double   1307388888

```

```

program
    int a,b,c;
    double d;

    d = 5 + 2*7^3
    print d;
end

---PROGRAM OUTPUT---
Declarations Error: Unexpected word

```