

This test includes program segments, which are not complete programs. Answer such questions with the assumption that the program segment is part of a correct program.

01. Which of the following are Java program keyword categories?

- ### (A) Reserved words, pre-defined identifiers and user-defined identifiers  
(B) Reserved pre-defined identifiers, reserved user-defined identifiers and library identifiers  
(C) void, static, println.  
(D) None of the above

02. Consider the two program segments below.

Segment A

```
int a;  
int b;  
a = 100;  
b = 200;
```

Segment B

```
int a = 100;  
int b = 200;
```

What is true about the comparison of these two segments?

- (A) Segment A is correct and segment B is not correct.  
(B) Segment A is incorrect and segment B is correct.  
### (C) Segment A and segment B are both correct.  
(D) segment A and segment B are both incorrect.

03. Consider the two program segments below.

Segment A

```
int a;  
int b;  
System.out.println(a);  
System.out.println(b);
```

Segment B

```
int a = 100;  
int b = 200;  
System.out.println(a);  
System.out.println(b);
```

What is true about the comparison of these two segments?

- ###
- (A) Segment A is correct and segment B is not correct.
  - (B) Segment A is incorrect and segment B is correct.
  - (C) Segment A and segment B are both correct.
  - (D) segment A and segment B are both incorrect.

04. Which of the following are examples of reserved words?

- ###
- (A) **public**, **void** and **static**
  - (B) **System**, **out** and **println**
  - (C) **System**, **public** and **void**
  - (D) **print**, **println** and **args**

05. Which of the following is used to store integers?

- ###
- (A) boolean
  - (B) char
  - (C) double
  - (D) int
  - (E) String

06. Which of the following is used to store real numbers?

- ###
- (A) boolean
  - (B) char
  - (C) double
  - (D) int
  - (E) String

07. Which of the following would be ideal for storing a Middle Initial?

- (A) boolean
- #### (B) char
- (C) double
- (D) int
- (E) String

08. Which of the following would you need to store someone's name?

- (A) boolean
- (B) char
- (C) double
- (D) int
- #### (E) String

09. Which of the following can only store 2 possible values: true or false ?

- #### (A) boolean
- (B) char
- (C) double
- (D) int
- (E) String

10. Which of the following stores 1 single character?

- (A) boolean
- #### (B) char
- (C) double
- (D) int
- (E) String

11. Which of the following can store words, phrases, or sentences?

- (A) boolean
- (B) char
- (C) double
- (D) int
- #### (E) String

12. Which of the following Java data types is the most like the Lego NXT **Number** data type?

- (A) boolean
- (B) char
- (C) double
- (D) int
- (E) String

###

13. Which of the following Java data types is the most like the Lego NXT **Text** data type?

- (A) boolean
- (B) char
- (C) double
- (D) int
- (E) String

###

14. Which of the following Java data types is the most like the Lego NXT **Logic** data type?

- (A) boolean
- (B) char
- (C) double
- (D) int
- (E) String

###

15. Which of the following are Java Keywords?

- (A) Reserved Words
- (B) Pre-defined Identifiers
- (C) User-defined Identifiers
- (D) All of the above

###

16. Assume *x* is defined as an *int*.  
Which of the following will add 1 to *x*?

- (A) `x++;`
- (B) `x+=1;`
- (C) `x=x+1;`
- (D) All of the above

###

17. Assume  $x$  is defined as an *int*.  
Which of the following will subtract 1 from  $x$ ?

- (A)  $x--$ ;
- (B)  $x-=1$ ;
- (C)  $x=x-1$ ;

#### (D) All of the above

18. Which operator is used for *multiplication*?

- (A) +
- (B) -
- (C) \*
- (D) /
- (E) %

####

19. Which operator will find the *quotient* when performing *division*?

- (A) +
- (B) -
- (C) \*
- (D) /
- (E) %

####

20. Which operator will find the *remainder* when performing *division*?

- (A) +
- (B) -
- (C) \*
- (D) /
- (E) %

####

21. Assume  $x$  is defined as an *int*.  
Which of the following will double the value in  $x$ ?

- (A)  $x = x + x$ ;
- (B)  $x += x$ ;
- (C)  $x = x * 2$ ;
- (D)  $x *= 2$ ;

#### (E) All of the above

22. 7 is a(n) \_\_\_\_\_ value.

- (A) char
- (B) double
- ### (C) int
- (D) String

23. 7.0 is a(n) \_\_\_\_\_ value.

- (A) char
- ### (B) double
- (C) int
- (D) String

24. '7' is a(n) \_\_\_\_\_ value.

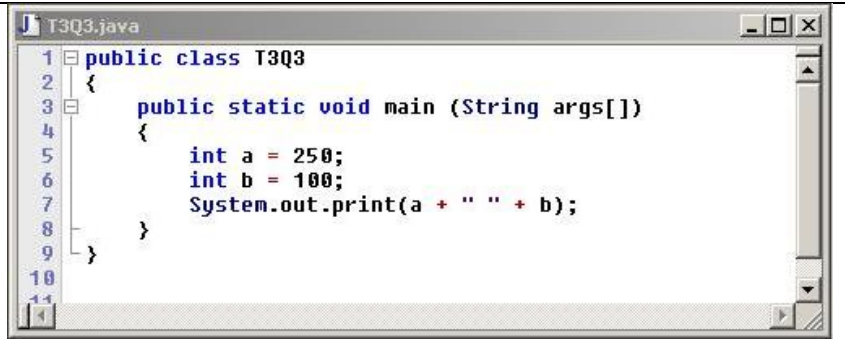
- ### (A) char
- (B) double
- (C) int
- (D) String

25. "7" is a(n) \_\_\_\_\_ value.

- (A) char
- (B) double
- (C) int
- ### (D) String

26. What is the output of this program?

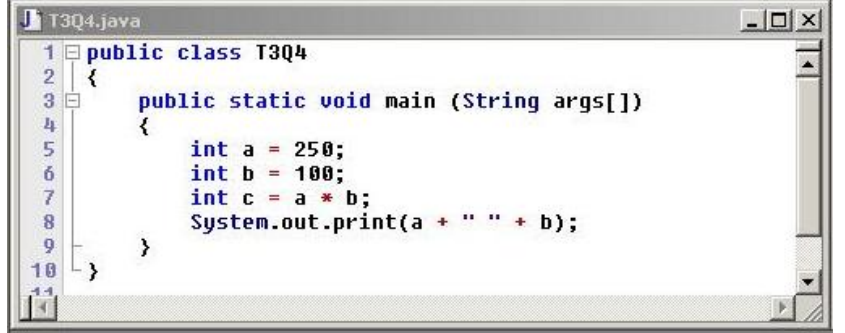
- (A) 2
- (B) 2.5
- (C) 150
- (D) 25000
- ### (E) 250 100



```
1 public class T3Q3
2 {
3     public static void main (String args[])
4     {
5         int a = 250;
6         int b = 100;
7         System.out.print(a + " " + b);
8     }
9 }
10
```

27. What is the output of this program?

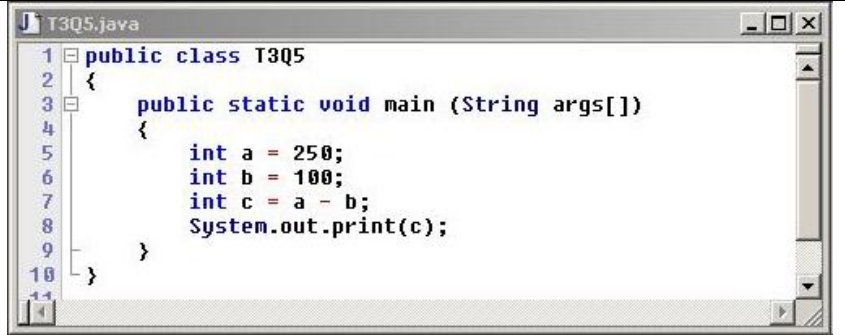
- (A) 2
- (B) 2.5
- (C) 150
- (D) 25000
- ### (E) 250 100



```
1 public class T3Q4
2 {
3     public static void main (String args[])
4     {
5         int a = 250;
6         int b = 100;
7         int c = a * b;
8         System.out.print(a + " " + b);
9     }
10 }
11
```

28. What is the output of this program?

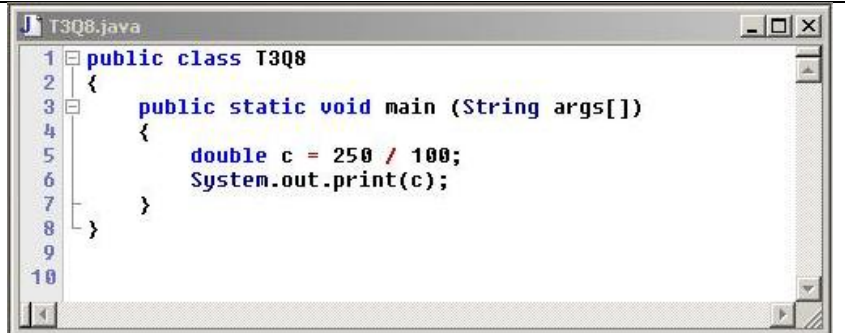
- (A) 2
- (B) 2.5
- ### (C) 150
- (D) 25000
- (E) 250 100



```
1 public class T3Q5
2 {
3     public static void main (String args[])
4     {
5         int a = 250;
6         int b = 100;
7         int c = a - b;
8         System.out.print(c);
9     }
10 }
11
```

29. What is the output of this program?

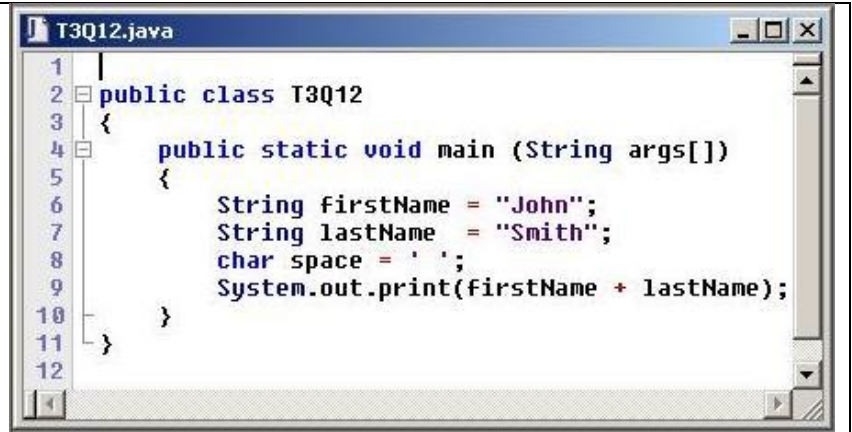
- ### (A) 2
- (B) 2.5
- (C) 150
- (D) 25000
- (E) 250 100



```
1 public class T3Q8
2 {
3     public static void main (String args[])
4     {
5         double c = 250 / 100;
6         System.out.print(c);
7     }
8 }
9
10
```

30. What is the output of this program?

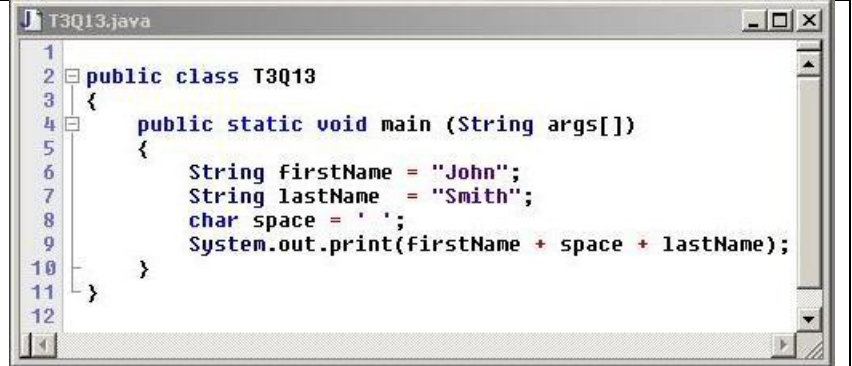
- (A) John
- (B) John Smith
- ### (C) JohnSmith
- (D) Smith, John
- (E) John C. Smith



```
1 public class T3Q12
2 {
3     public static void main (String args[])
4     {
5         String firstName = "John";
6         String lastName = "Smith";
7         char space = ' ';
8         System.out.print(firstName + lastName);
9     }
10 }
11 }
12 }
```

31. What is the output of this program?

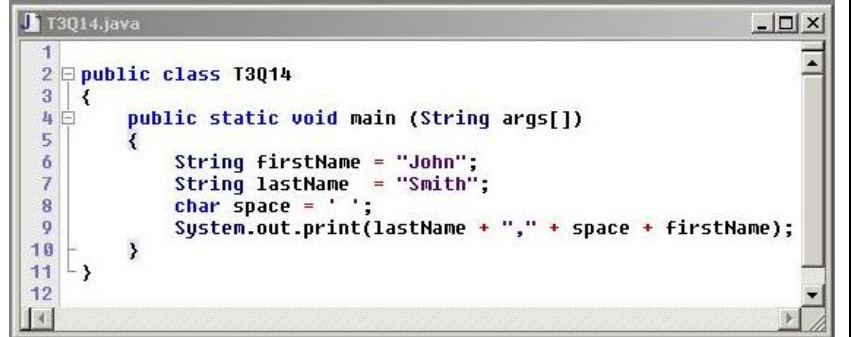
- (A) John
- ### (B) John Smith
- (C) JohnSmith
- (D) Smith, John
- (E) John C. Smith



```
1 public class T3Q13
2 {
3     public static void main (String args[])
4     {
5         String firstName = "John";
6         String lastName = "Smith";
7         char space = ' ';
8         System.out.print(firstName + space + lastName);
9     }
10 }
11 }
12 }
```

32. What is the output of this program?

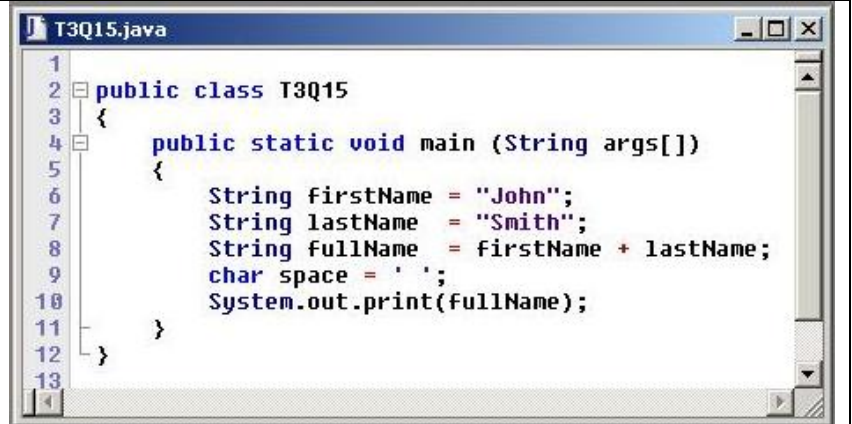
- (A) John
- (B) John Smith
- (C) JohnSmith
- ### (D) Smith, John
- (E) John C. Smith



```
1 public class T3Q14
2 {
3     public static void main (String args[])
4     {
5         String firstName = "John";
6         String lastName = "Smith";
7         char space = ' ';
8         System.out.print(lastName + "," + space + firstName);
9     }
10 }
11 }
12 }
```

33. What is the output of this program?

- (A) John
- (B) John Smith
- ### (C) JohnSmith
- (D) Smith, John
- (E) John C. Smith



```
1 public class T3Q15
2 {
3     public static void main (String args[])
4     {
5         String firstName = "John";
6         String lastName = "Smith";
7         String fullName = firstName + lastName;
8         char space = ' ';
9         System.out.print(fullName);
10 }
11 }
12 }
13 }
```



34. What is the output of this program?

- (A) 100
- (B) 200
- (C) 300
- ### (D) 100200
- (E) 100 200

```
T3Q16.java
1 public class T3Q16
2 {
3     public static void main (String args[])
4     {
5         String firstNumber = "100";
6         String lastNumber = "200";
7         String newNumber = firstNumber + lastNumber;
8         char space = ' ';
9         System.out.print(newNumber);
10    }
11 }
12 }
13 }
```

35. What is the output of this program?

- (A) 100
- (B) 200
- ### (C) 300
- (D) 100200
- (E) 100 200

```
T3Q17.java
1 public class T3Q17
2 {
3     public static void main (String args[])
4     {
5         int firstNumber = 100;
6         int lastNumber = 200;
7         int newNumber = firstNumber + lastNumber;
8         char space = ' ';
9         System.out.print(newNumber);
10    }
11 }
12 }
13 }
```

36. What is the output of this program?

- ### (A)  
Grade: 100  
PI: 3.141592653589793  
Middle Initial: Q
- (B)  
Grade: 101  
PI: 2.7182818284590904  
Middle Initial: A
- (C) No Output
- (D) Compiler Error

```
T3Q20.java
1 public class T3Q20
2 {
3     public static void main (String args[])
4     {
5         final int grade = 100;
6         final double PI = 3.141592653589793238462643383279502884;
7         final char middleInitial = 'Q';
8
9         // grade++;
10        // PI = 2.7182818284590904528182818;
11        // middleInitial = 'A';
12
13        System.out.println("Grade: " + grade);
14        System.out.println("PI: " + PI);
15        System.out.println("Middle Initial: " + middleInitial);
16        System.out.println();
17    }
18 }
```

37. What is the output of this program?

- (A)  
Grade: 100  
PI: 3.141592653589793  
Middle Initial: Q
- (B)  
Grade: 101  
PI: 2.7182818284590904  
Middle Initial: A
- (C) No Output
- ### (D) Compiler Error

```
T3Q21.java
1 public class T3Q21
2 {
3     public static void main (String args[])
4     {
5         final int grade = 100;
6         final double PI = 3.141592653589793238462643383279502884;
7         final char middleInitial = 'Q';
8
9         grade++;
10        PI = 2.7182818284590904528182818;
11        middleInitial = 'A';
12
13        System.out.println("Grade: " + grade);
14        System.out.println("PI: " + PI);
15        System.out.println("Middle Initial: " + middleInitial);
16        System.out.println();
17    }
18 }
19 }
```

38. Which of the following is the *single-line* comment symbol?

- ### (A) //  
(B) \\  
(C) /\*  
(D) \*/

39. Which of the following is the *begin-multiple-line* comment symbol?

- (A) //  
(B) \\  
### (C) /\*  
(D) \*/

40. Which of the following is the *end-multiple-line* comment symbol?

- (A) //  
(B) \\  
(C) /\*  
### (D) \*/

41. What is the value of x after this statement?

**int x = 3 + 7 \* 5;**

- (A) 26  
### (B) 38  
(C) 48  
(D) 50  
(E) 66

42. What is the value of x after this statement?

**int x = 3 + (7 \* 5);**

- (A) 26  
### (B) 38  
(C) 48  
(D) 50  
(E) 66

43. What is the value of x after this statement?

**int x = (3 + 7) \* 5;**

- (A) 26
- (B) 38
- (C) 48
- ### (D) 50
- (E) 66

44. What is the value of x after this statement?

**int x = (4 + 8) / 2;**

- (A) 2
- (B) 4
- ### (C) 6
- (D) 8
- (E) 12

45. What is the value of x after this statement?

**int x = 4 + 8 / 2;**

- (A) 2
- (B) 4
- (C) 6
- ### (D) 8
- (E) 12

46. What is the value of x after this statement?

**int x = 4 + (8 / 2);**

- (A) 2
- (B) 4
- (C) 6
- ### (D) 8
- (E) 12

47. What is the value of x after this statement?

```
int x = 2 / 5;
```

- ### (A) 0  
(B) 0.4  
(C) 0.5  
(D) 2  
(E) 2.5

48. What is the value of x after this statement?

```
double x = 2.0 / 5.0;
```

- ### (A) 0  
(B) 0.4  
(C) 0.5  
(D) 2  
(E) 2.5

49. What is the output of this program segment?

```
double PI = 3.14159;  
System.out.println(PI);
```

- ### (A) PI  
(B) 3.14159  
(C) PI = 3.14159  
(D) PI = PI  
(E) Compile Error

50. What is the output of this program segment?

```
double PI = 3.14159;  
System.out.println("PI");
```

- ### (A) PI  
(B) 3.14159  
(C) PI = 3.14159  
(D) PI = PI  
(E) Compile Error

51. What is the output of this program segment?

```
double PI = 3.14159;  
System.out.println("PI = " + PI);
```

- (A) PI
- (B) 3.14159
- ### (C) PI = 3.14159
- (D) PI = PI
- (E) Compile Error

52. What is the output of this program segment?

```
double PI;  
System.out.println(PI);
```

- (A) PI
- (B) 3.14159
- (C) PI = 3.14159
- (D) PI = PI
- ### (E) Compile Error

53. What is the output of this program segment?

```
int q = 11;  
q--;  
q--;  
q--;  
q--;  
System.out.println(q);
```

- ### (A) 7
- (B) 8
- (C) 9
- (D) 10
- (E) 11

54. What is the output of this program segment?

```
int q = 11;  
q--;  
q++;  
q--;  
q++;  
System.out.println(q);
```

- (A) 7
- (B) 8
- (C) 9
- (D) 10
- (E) 11

###

55. What is the output of this program segment?

```
int q = 4;  
q *= 2;  
System.out.println(q);
```

- (A) 7
- (B) 8
- (C) 9
- (D) 10
- (E) 11

###

56. What is the output of this program segment?

```
int q = 24;  
q /= 3;  
q++;  
System.out.println(q);
```

- (A) 7
- (B) 8
- (C) 9
- (D) 10
- (E) 11

###

57. What is the output of this program segment?

```
int q = 24;  
q /= 4;  
q--;  
System.out.println(q);
```

- ### (A) 5  
(B) 6  
(C) 7  
(D) 8  
(E) 9

58. What is the output of this program segment?

```
int a = 2;  
int b = 3;  
a++;  
b--;  
int c = a + b;  
System.out.println(c);
```

- ### (A) 5  
(B) 6  
(C) 7  
(D) 8  
(E) 9

59. What is the output of this program segment?

```
int a = 4;  
int b = 3;  
a *= 3;  
b *= 2;  
int c = a + b;  
System.out.println(c);
```

- (A) 6  
(B) 7  
(C) 12  
### (D) 18  
(E) 72

60. What is the output of this program segment?

```
int a, b;  
a = b = 30;  
a /= 3;  
b /= 5;  
int c = a - b;  
System.out.println(c);
```

- ### (A) 4  
(B) 6  
(C) 8  
(D) 10  
(E) 30