



Take-Home Quizzes

Review Test Submission: Java Review 2

## Review Test Submission: Java Review 2

|                   |   |
|-------------------|---|
| User              | Jinlang Wang  |
| Course            | 2194_CS_0401_SEC1500_INTRMEDIT PROGRAMMING USING JAVA                                     |
| Test              | Java Review 2   |
| Started           | 2/24/19 10:13 AM  |
| Submitted         | 2/25/19 11:36 PM  |
| Due Date          | 3/5/19 11:59 PM   |
| Status            | Completed   |
| Attempt Score     | 11 out of 11 points   |
| Time Elapsed      | 1 hour, 26 minutes  |
| Results Displayed | All Answers, Submitted Answers, Correct Answers, Feedback, Incorrectly Answered Questions |


### Question 1


1 out of 1 points



What is the output of the following code snippet?

```
int x;  
x = 2 * 5 + 9 / 3;  
System.out.println(x);
```

Selected Answer:  b. 13

- Answers:
- a. 6
  -  b. 13
  - c. 8
  - d. 16

Response Feedback: Recall the \* and / have higher precedence than + and -. Thus, the expression `2 * 5 + 9 / 3` will be evaluated as

$$(2 * 5) + (9 / 3)$$

which is 13.

## Question 2

1 out of 1 points



What is the output of the following code snippet?

```
int x;  
x = 1 + 2 - 3 + 4 - 5;  
System.out.println(x);
```

Selected Answer: ☒ b. -1

- Answers:
- a. 1
  - ☒ b. -1
  - c. -9
  - d. -5

Response + and - operators have the same precedence.  
Feedback: Thus, we have to look at their associativity. Both + and - are left associative. Thus, the expression  $1 + 2 - 3 + 4 - 5$  will be evaluated as

$$(((1 + 2) - 3) + 4) - 5$$

which is -1.

## Question 3

1 out of 1 points



What is the shorthand notation to increase the value of x by 2?

Selected Answer: ☒ b.  $x += 2$ ;

- Answers:
- a.  $x^2$ ;
  - ☒ b.  $x += 2$ ;
  - c.  $x^{\wedge}2$ ;
  - d.  $x++2$ ;

Response  $x += y$ ; is a shorthand notation for  $x = x$   
Feedback:  $+ y$ ;. To increase x by 2, we need to execute the statement  $x = x + 2$ ; which is  $x += 2$ ;

**Question 4**

1 out of 1 points



How to construct a Scanner object to receive inputs from the keyboard?

Selected Answer:

☒ b.  
`Scanner inScan = new Scanner(System.in);`

Answers:

a.  
`Scanner inScan = new Scanner(keyboard);`

☒ b.  
`Scanner inScan = new Scanner(System.in);`

c. `Scanner inScan = new Scanner();`

d. `Scanner inScan = System.in;`

Response Feedback: A Scanner object needs a source of input. In Java, there is a predefined object `System.in` which can be used to construct a Scanner object. Thus, the proper way to construct a Scanner object to receive inputs from keyboard is

```
Scanner inScan = new
Scanner(System.in);
```

**Question 5**

1 out of 1 points



Suppose we have a Scanner object named `inScan`. How to use `inScan` to read keyboard input as an integer?

Selected Answer:

☒ b. `int x = inScan.nextInt();`

Answers:

a.  
`int x = inScan.Integer.parseInt();`

☒ b. `int x = inScan.nextInt();`

c. `int x = inScan.Integer();`

d. `int x = inScan.next();`

Response Feedback: `nextInt()` method of the Scanner class will parse the keyboard input to an integer.

**Question 6**

1 out of 1 points



Which of the following is **NOT** a boolean operator?

Selected Answer: ☒ d. ==

Answers: a. >

b. !=

c. <=

☒ d. ==

Response Feedback: Boolean operators in Java are < (less than), > (greater than), == (equal to), != (not equal to), <= (less than or equal to), and >= (greater than or equal to).

**Question 7**

1 out of 1 points



What is the output of the following code snippet?

```
boolean p = true, q = false;  
boolean r = p && q;  
System.out.println(r);
```

Selected Answer: ☒ b. false

Answers: a. r

☒ b. false

c. p && q

d. true

Response Feedback: && is the logical AND operator. true && false is false.

**Question 8**

1 out of 1 points



What is the boolean expression that will be evaluated to true if the value of x is greater than or equal to 5 and less than or equal to 10?

Selected Answer: ☒ c. `x >= 5 && x <= 10`

Answers: a. `x >= 5 and x <= 10`

b. `5 < x && x < 10`

☒ c. `x >= 5 && x <= 10`

d. `5 <= x <= 10`

Response We need a logical operator to combine two  
Feedback: boolean expression into one. In this case, we need x to be greater than or equal to 5 which is `x >= 5` or `5 <= x` and we need x to be less than or equal to 10 which is `x <= 10` or `10 >= x`. We need the `&&` operator to combine them to

`x >= 5 && x <= 10`

### Question 9

1 out of 1 points



What is the output of the following code snippet?

```
int x = 10;
if(x % 2 == 0)
    System.out.print("even");
else
    System.out.print("odd");
System.out.println(" number");
```

Selected Answer: ☒ c. even number

Answers: a. evenodd number

b. number

☒ c. even number

d. odd number

Response Since x is 10 and `10 % 2` is 0. Thus, the  
Feedback: expression `x % 2 == 0` will be evaluated to true. Therefore, the if statement will execute statements under true option (if body) and ignore the false option (else body). Thus the output will be

even number

### Question 10

1 out of 1 points



Consider the following code snippet:

```
int x = 0;

while(x < 10)
{
    System.out.println(x);
}
```

How many time the statement `System.out.println(x)` will be executed?

Selected Answer: ☒ c. Infinite number of times

Answers:

- a. 11 times
- b. 9 times
- ☒ c. Infinite number of times
- d. 10 times

Response Feedback: The value of x is always 0. There is no statements that change the value of x. Thus `x < 10` will always true. Therefore, the above while loop will execute the statement `System.out.println(x)` infinite number of times.

### Question 11

1 out of 1 points



Consider the following for loop:

```
for(int x = 0; x < 10; x = x + 2)
{
    do something;
}
```

where "do something;" is a sequence of Java statement. A while loop can be used to replace the above for loop. Which of the following while loop has exact same behavior as the above for loop?

Selected Answer:

```
int x = 0;
while(x < 10)
{
    do something;
    x = x + 2;
}
```

☒ d. }

Answers:

```

int x = 0;
while(x < 10)
{
    do something;
a. }

int x = 0;
while(x + 2 < 10)
{
    do something;
b. }

int x = 0;
while(x < 10)
{
    x = x + 2;
    do something;
c. }

int x = 0;
while(x < 10)
{
    do something;
    x = x + 2;
d. }

```

Response  
Feedback:

Recall the syntax of the for statement

```

for(initial_expression;
loop_condition; loop_expression)
{
    loop body
}

```

Recall that the behavior of the for statement:

1. Execute the initial expression ( $x = 0$  in the above code)
2. Evaluate the loop condition ( $x < 10$  in the above code)
3. Execute the loop body if the loop expression is true (do something)
4. Execute the loop expression ( $x = x + 2$  in the above code)
5. Go back to step 2.

Thus, to create an equivalent behavior using the while statement, it should be

```

int x = 0;
while(x < 10)
{
    do something;
    x = x + 2;
}

```

Tuesday, March 5, 2019 9:21:37 PM EST

← OK