

Big Java Chapter 4 Test

Due Oct 11 at 11:59pm

Points 35

Questions 35

Available until Oct 11 at 11:59pm

Time Limit None

Allowed Attempts 3

Instructions

This quiz is designed to accompany the reading of the text and is therefore open text, browser, neighbor etc. You have three attempts; the best grade will automatically be recorded (no reason to NOT receive a perfect score) and trends for incorrect answers will provide substance for discussion as chapter is finalized.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	21 minutes	28 out of 35

Score for this attempt: 28 out of 35
Submitted Oct 8 at 12:47pm
This attempt took 21 minutes.

Correct!

Question 11 / 1 pts

Which of the following options declares a `float` variable?

☐ `Float age;`

☐ `flt age;`

☒ `float age;`

☐ `age: float;`

Correct!

Question 21 / 1 pts

Which of the following guidelines will make code more explanatory for others?

☐ Use more statements in source code.

☒ Add comments to source code.

☐ Avoid usage of complex calculations in source code.

☐ Always enclose the statements in curly braces in source code.

Question 31 / 1 pts

What are the values of `num1` and `num2` after this snippet executes?

```
double num1 = 4.20;  
double num2 = num1 * 10 + 5.0;
```

☐ `num1 = 4.20 and num2 = 42.0`

Correct!

☒ num1 = 4.20 and num2 = 47.0☐ num1 = 42.0 and num2 = 42.0☐ num1 = 42.0 and num2 = 47.0

Question 4

1 / 1 pts

What is the value of `Math.pow(3, 2)`?☐ 6.0☒ 9.0☐ 8.0☐ 5.0

Correct!

Question 5

1 / 1 pts

Which operator is used to concatenate two or more strings?

☒ +☐ %☐ &☐ ^

Correct!

Question 6

1 / 1 pts

How do you compute the length of the string `str`?☐ `length(str)`☐ `length.str`☐ `str.length`☒ `str.length()`

Correct!

Question 7

1 / 1 pts

Which one of the following statements gives the absolute value of the floating-point number `x = -25.50`?

Correct!

☐ `abs(x);`☒ `Math.abs(x);`☐ `x.abs();`☐ `x.absolute();`

Question 8

0 / 1 pts

Which of the methods below are static methods?

I. `length`II. `substring`III. `pow`IV. `sqrt`

You Answered

☒ All the methods are static☐ Only I, II and III☐ Only II and IV

Correct Answer

☐ Only III and IV

Question 9

1 / 1 pts

What is the value of `Math.abs(-2)`?☐ -2☐ 0

Correct!

☒ 2☐ 4

Question 10

1 / 1 pts

What is the output of the following code snippet?

```
public static void main(String[] args)
{
    double x;
    x = Math.pow(3.0, 2.0) + Math.pow(4.0, 2.0);
    System.out.println(x);
}
```

Correct!

☒ 25.0☐ 34

☐ 7.0☐ 14**Question 11**

1 / 1 pts

Which of the given statements generates the following output?

\\\"/>

☐ `System.out.println("\\\"/>`☒ `System.out.println("\\\"/>`☐ `System.out.println("\\\"/>`☐ `System.out.println("\\\"/>`

Correct!

Question 12

1 / 1 pts

Which one of the following statements can be used to extract the last 10 characters from the string variable `str`?

☒ `str.substring(str.length() - 10, str.length())`☐ `str.substring(10, str.length())`☐ `str.substring(str.length() - 9, 10)`☐ `str.substring(0, 10)`

Correct!

Question 13

1 / 1 pts

Which one of the following statements can be used to get the fifth character from a string `str`?

☐ `char c = str.charAt(5);`☒ `char c = str.charAt(4);`☐ `char c = str[5];`☐ `char c = str[4];`

Correct!

Question 14

0 / 1 pts

Which one of the following statements displays the output as (1.23e+02)?

Correct Answer

☐ System.out.printf("%(5.2e", -123.0);

☐ System.out.printf("%5.2e", -123.0);

☐ System.out.printf("^5.2e", -123.0);

You Answered

☒ System.out.printf("%5.2E", -123.0);

Question 15

1 / 1 pts

One way to avoid round-off errors is to use:

☐ Math.sqrt()

☐ Math.pow()

☒ Math.round()

☐ Math.truncate()

Correct!

Question 16

1 / 1 pts

What does the following statement sequence print?

```
String str = "Harry";
int n = str.length();
String mystery = str.substring(0, 1) + str.substring(n - 2, n);
System.out.println(mystery);
```

☐ Ha

☐ Har

☐ Hy

☒ Hry

Correct!

Question 17

1 / 1 pts

What does the following statement sequence print if the user input is 123?

```
public static void main(String[] args)
{
    Scanner in = new Scanner(System.in);
    System.out.print("Enter a number ");
    int myInt = in.nextInt();
    myInt += 456;
```

```
System.out.println(myInt);  
}
```

Correct!

☒ 579☐ Compile-time error☐ Run-time error☐ 123456**Question 18**

0 / 1 pts

What does the following statement sequence print if the user input is 123?

```
public static void main(String[] args)  
{  
    Scanner in = new Scanner(System.in);  
    System.out.print("Enter a number: ");  
    String str = in.next();  
    str += 456;  
    System.out.println(str);  
}
```

☐ 579

You Answered

☒ Compile-time error☐ Run-time error

Correct Answer

☐ 123456**Question 19**

0 / 1 pts

What is the output of the following statement sequence?

```
public static void main(String[] args)  
{  
    int x = 100.0 % 6.0;  
    System.out.println(x);  
}
```

You Answered

☒ 4

Correct Answer

☐ Compile-time error☐ Run-time error☐ 16**Question 20**

1 / 1 pts

Which statement about number literals in Java is false?

Correct!

- ☐ Numbers in exponential notation always have type `double`
- ☐ Zero is an integer
- ☒ Integers must be positive
- ☐ An integer with fractional part of .0 has type `double`.

Question 21

1 / 1 pts

The assignment operator

Correct!

- ☐ denotes mathematical equality
- ☒ places a new value into a variable
- ☐ means the same as the equals sign used in algebra
- ☐ makes it illegal to write a statement like `sum = sum + 4;`

Question 22

1 / 1 pts

The first step in problem solving is

Correct!

- ☐ To write the expression that calculates the answer
- ☒ To understand the problem and its inputs and outputs
- ☐ To do examples by hand that confirm the solution will work
- ☐ To write Java code that can be executed and tested

Question 23

1 / 1 pts

What is the correct way to invoke methods on variables in Java that are strings?

Correct!

- ☐ Methods can only be invoked on string constants, not on variables.
- ☐ For each method there is a special operator that must be used.
- ☐ There are no methods available in Java for string variables.
- ☒ Invoke them using the variable name and the dot (.) notation.

Question 24

1 / 1 pts

What is wrong with the following code snippet?

```
int size = 42;
cost = 9.99;
```

```
System.out.println("size = " + size);  
System.out.println(" cost = " + cost);
```

Correct!

- ☐ The code snippet uses a variable that has not yet been initialized.
- ☒ The code snippet uses a variable that has not been declared.
- ☐ The code snippet attempts to assign a decimal value to an integer variable.
- ☐ The code snippet attempts to assign an integer value to a decimal variable.

Question 25

1 / 1 pts

Which one of the following is an assignment statement?

Correct!

- ☐ `int a = 20;`
- ☒ `a = 20;`
- ☐ `assign a = 20;`
- ☐ `assign 20 to a;`

Question 26

1 / 1 pts

What is the meaning of `x = 0;` in Java?

Correct!

- ☐ It checks whether x equals 0.
- ☒ It sets the variable x to zero.
- ☐ It defines a variable named x and initializes it with 0.
- ☐ It is a syntax error because x is not always 0.

Question 27

1 / 1 pts

What is the value of `Math.pow(2, 3)?`

Correct!

- ☐ 5.0
- ☐ 6.0
- ☒ 8.0
- ☐ 9.0

Question 28

1 / 1 pts

Which one of the following is a correct representation of the given mathematical expression in Java?

$$\frac{a - \frac{b}{2}}{2}$$

- ☐ `a - b / 2 % 2`
- ☐ `a - b / 2`
- ☐ `a - (b / 2) / 2`
- ☒ `(a - b / 2) / 2`

Correct!

Question 29

1 / 1 pts

Which of the following is the mathematical equivalent of the following Java expression?

```
h = (4.0 * a * b - Math.pow(b, 2)) / c;
```

- ☐ `h = 4ab - 2b / c`
- ☐ `h = (4ab - 2b) / c`
- ☐ `h = 4ab - b2/ c`
- ☒ `h = (4ab - b2) / c`

Correct!

Question 30

1 / 1 pts

What will be printed by the statement below?

```
System.out.print("0\\my\\t\\\\"no!");
```

- ☐ `0"myt\"no!`
- ☐ `0\\my\\t\\\\"no!`
- ☐ `0\\ my\\t\\\\" no!`
- ☒ `0"my \"no!`

Correct!

Question 31

1 / 1 pts

Assume the following variable has been declared and given values as shown:

String name = "Mamey, Jean";

Which statement will print the name as "Jean Mamey"?

- ☒ `System.out.print(name.substring(7) + " " + name.substring(0, 5));`
- ☐ `System.out.print(name.substring(8, 4) + " " + name.substring(1, 5));`

Correct!

☐ `System.out.print(name.substring(8) + " " + name.substring(1, 4));`

☐ `System.out.print(name.substring(2) + " " + name.substring(1));`

Question 32

0 / 1 pts

What is the value of the following expression?

1 % 12

Correct Answer

☐ 1

☐ 0

☐ -11

You Answered

☒ This is an error because 12 is greater than 1

Question 33

1 / 1 pts

Assume the following variables have been declared and given values as shown:

```
String str = "0123456789";  
String sub = str.substring(3, 4);
```

Which is the value of `sub`?

Correct!

☒ 3

☐ 34

☐ 345

☐ 3456

Question 34

0 / 1 pts

Assume the following variable has been declared and given a value as shown:

```
String str = "0123456789";
```

Which is the value of `str.length()`?

Correct Answer

☐ 9

You Answered

☒ 10

☐ 11

☐ 12

Question 35

0 / 1 pts

Assume the variable `str` has been declared to be a `String` that has at least one character. Which of the following represents the last character in `str`?

You Answered

☒ `str.charAt(str.length())`☐ `str.lastChar()`

Correct Answer

☐ `str.charAt(str.length() - 1)`☐ `str.substring(str.length())`

Quiz Score: 28 out of 35