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.

Question 1

1 / 1 pts

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

- `Float age;`
- `flt age;`
- Correct! `float age;`
- `age: float;`

Question 2

1 / 1 pts

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

- Use more statements in source code.
- Correct! Add comments to source code.
- Avoid usage of complex calculations in source code.
- Always enclose the statements in curly braces in source code.

Question 3

1 / 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

Correct!

- 9.0
- 8.0
- 5.0

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`

Correct!

- `str.length()`

Question 7 1 / 1 pts

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

- `abs(x);`

Correct!

- `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("\\\"///");`

Correct!

`System.out.println("\\\\\\\"///");`

`System.out.println("\\\\\\""//////");`

`System.out.println("\\\"///");`

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`?

Correct!

```
str.substring(str.length() - 10, str.length())
```

```
str.substring(10, str.length())
```

```
str.substring(str.length() - 9, 10)
```

```
str.substring(0, 10)
```

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);
```

Correct!

```
char c = str.charAt(4);
```

`char c = str[5];`

`char c = str[4];`

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()`

Correct!

- `Math.round()`
- `Math.truncate()`

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

Correct!

- Hry

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?

- Numbers in exponential notation always have type `double`
- Zero is an integer

Correct!

- Integers must be positive
- An integer with fractional part of .0 has type `double`.

Question 21 1 / 1 pts

The assignment operator

- denotes mathematical equality

Correct!

- 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

- To write the expression that calculates the answer

Correct!

- 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?

- 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.

Correct!

- 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);
```

- The code snippet uses a variable that has not yet been initialized.

Correct!

- 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?

- `int a = 20;`

Correct!

- `a = 20;`
- `assign a = 20;`
- `assign 20 to a;`

Question 26 1 / 1 pts

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

- It checks whether x equals 0.

Correct!

- 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)?`

- 5.0
- 6.0

Correct!

- 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`

Correct!

- (`a - b / 2) / 2`

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

Correct!

- h = (4ab - b2) / c

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!`

Correct!

- `0"my \"no!`

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"?

Correct!

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

- `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 is 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