

Name: _____
Date: _____
Class: _____



AP Java Unit 3 basic practice

1. What is the name of the method to print out text in Java?

A

- A. `System.out.println()`
- B. `System.out.printlnline()`
- C. `System.output()`
- D. `System.out.PRINTLN()`

2. What is the output of the following lines?

```
int x = 24;  
System.out.println("The total is " + x + x);
```

B

- A. The total is 24
- B. The total is 2424
- C. The total is 48
- D. The total is $x + x$

3. Which of the following is not a primitive type?

C

- A. `int`
- B. `double`
- C. `String`
- D. `boolean`
- E. `char`

4. What is the value of `x` after this code?

```
int x = 5;  
x = 10;  
x = 4;
```

C

- A. 5
- B. 10
- C. 4
- D. `true`

X
~~5~~
10
4

5. What is the proper syntax to initialize a double called temperature to have the value 70.4?

- A. `int temperature = 70.4;`
- B. `double temperature = 70.4;`
- C. `temperature = 70.4;`
- D. `float temperature = 70.4;`

B

6. What is the result of this expression?

```
5 + 2 / 3 + 1
```

5 + 0 + 1

2 / 3 is int division

- A. 5
- B. 6
- C. 6.67
- D. 0

B

7. Which expression returns the 1's place of an integer x?

- A. `x % 10`
- B. `x / 10`
- C. `x % 100`
- D. `x + 1`

ie: if x hold 352

352 % 10 yields 2

```

      35
  10 | 352
      30
      --
       52
       50
       --
        2
  
```

← remainder %

A

8. What is the value of myInteger after this line of code?

```
int myInteger = (int) 5.6;
```

- A. 6
- B. 5.5
- C. 5
- D. 9

C

9. Which expression is true?

- A. `true && !true`
- B. `!false || !true`
- C. `true && false`
- D. `false || false || !true`

← true || false, so true

B

10. Which of these is not a logical operator?

- A. `&&`
- B. `!`
- C. `||`
- D. `++`

← increments

D

11. What is the output of this for loop?

```

for(int i = 0; i < 100; i += 2)
{
    System.out.println(i);
}

```

i
0
2
..

print:
0
2
:

A

- A. The even numbers from 0 to 98, inclusive
- B. The even numbers from 0 to 100, inclusive
- C. All of the numbers from 0 to 100
- D. The odd numbers from 0 to 98, inclusive

12. What is the output of this for loop?

```

for(int i = 10; i > 2; i -= 3)
{
    System.out.println(i);
}

```

i
~~10~~
~~7~~
~~4~~
1

Print:
10
7
4

A

- A. 10
7
4
- B. 10
7
4
1
- C. 1
2
3
- D. 10
8
6
4
2

do not enter loop any more

13. How many times will the loop execute?

```

int i = 0;
while(i < 50)
{
    System.out.println(i);
    i += 10;
}

```

i
0
10
20
30
40
50

count:
1
1
1
1
1

C

- A. 0
- B. 4
- C. 5
- D. 50

→ does not go through loop

14. What will this code output?

```
if(true && true && false)
{
    System.out.println("Hello Karel");
}
if(true && 4 == 2 + 2)
{
    System.out.println("Second if statement!");
}
```

- D
- A. Hello Karel
 - B. Hello Karel
Second if statement!
 - C. This program will print nothing
 - D. Second if statement!

15. What will this program print if the value of grade is 80?

```
if(grade > 90)
{
    System.out.println("A");
}
else if(grade > 80)
{
    System.out.println("B");
}
else if(grade > 70)
{
    System.out.println("C");
}
```

- B
- A. A
 - B. B
 - C. C
 - D. Nothing

16. What output will be produced by

```
System.out.println("Hello");
System.out.println("Karel");
```

- C
- A. Hello Karel
 - B. HelloKarel
 - C. Hello
Karel
 - D. Error

17. What will the values of x and y be after this code segment runs?

```

int x = 100;
int y = 100;
if (x <= 100)
{
    if (y > 100)
    {
        x = 200;
    }
    else
    {
        x = 99;
    }
}
else
{
    x++;
}
y = x + y;

```

X	Y
100	100
99	199

$y = 99 + 100$

- A. x = 100
y = 200
- B. x = 101
y = 100
- C. x = 101
y = 201
- D. x = 99
y = 199

D

18. What will the code segment output? *challenging!*

```

for (int m = 5; m > 0; m--) - 5 times
{
    for(int n = m; n > 0; n--) → 5, then 4, then 3
    {
        System.out.print("*");
    }
    System.out.println();
}

```

- A. *
**

- B. *****

**
*
- C. *****

- D. *****

B

19. Refer to the following code segment:

```
double myDouble = 1/4;
System.out.println("1 / 4 = " + myDouble);
```

→ still int division on right side

The output of the code is:

1 / 4 = 0.0

The student wanted the output to be:

1 / 4 = 0.25

Which change to the first line of their code segment would get the student the answer that they wanted?

- A. int myDouble = 1/4;
- B. double myDouble = (double) 1/4;
- C. double myDouble = (int) 1/4;
- D. double myDouble = (int) (1.0/4.0);

B

→ becomes 1.0 / 4

cast higher precedence

20. What is the result of this expression?

```
4 + 8 * 3 / 4 + 5 % 2
```

→ 4 + 6 + 1

do underlines first

8 * 3 / 4 → left to right order, equal precedence

- A. 5
- B. 6
- C. 12
- D. 11

D

21. Which of these is not a valid Java method name?

- A. runInCircles
- B. jumpHurdle
- C. find tower
- D. finishMaze

C

22. Which of these is not a valid Java method name?

- A. spin10Times
- B. 10TimesMove
- C. moveTenTimes
- D. spinTenTimes

B

23. Which of these characters can a Java method name start with?

- (I) Letters ✓
- (II) Numbers
- (III) Underscore ✓
- (IV) \$ Sign ✓

- A. I only
- B. I and II
- C. II only
- D. I and III
- E. I, III, and IV

E

i tried & compiled & executed. However bad convention to use anything other than letter to start

24. What in this code segment could potentially cause a bug in our program?

```
String myString = readLine("What is your name?");
if (myString == "Karel")
{
    System.out.println("Hi Karel!");
}
else
{
    System.out.println("You're not Karel!");
}
```

we have not studied this, but comparing two strings requires `.equals`
 s/b `myString.equals("Karel")`

D

- A. Syntax error in the if statement
- B. Nothing
- C. Trying to store a Line in a String variable.
- D. Comparing Strings with == instead of the .equals method.

25. What is the output of this program?

```
int sum = 1;
System.out.println("Welcome to the adding machine!");
while(sum < 10)
{
    sum += sum;
    System.out.println(sum);
}
```

sum
 1
 2 ← printed first
 4
 8
 16

B

- A. Welcome to the adding machine!
1
2
4
8
16
- B. Welcome to the adding machine!
2
4
8
16
- C. Welcome to the adding machine!
2
4
8
- D. This code has an infinite loop.