

Zambia Centre for Accountancy Studies

NCC Diploma in Computing – Level 4

Test 1 Solutions

1. This question has two components –allowed variables and those conforming to correct style.

Variables names that are allowed

Variable	Allowed	Comment	Marks
Volume	Yes		0.5
AREA	Yes		0.5
Length	Yes		0.5
mysalary	Yes		0.5
Side1	Yes		0.5
getFirst	Yes		0.5
double	No	'double' is reserved word in Java	0.5
Your salary	No	White space NOT allowed in variable name	0.5
screenSize	Yes		0.5
3sides	No	Variable CANNOT start with numeric value	0.5

Variables names with correct style

Variable	Style	Comment	Marks
Volume	No	Variable MUST not start with uppercase letter	0.5
AREA	Yes	Valid if variable is a constant	0.5
Length	No	Variable MUST not start with uppercase letter	0.5
mysalary	Yes	Valid	0.5
Side1	Yes	Valid	0.5
getFirst	Yes	Valid	0.5
double	No	'double' is reserved word in Java	0.5
Your salary	No	White space NOT allowed in variable name	0.5
screenSize	Yes	Valid	0.5
3sides	No	Variable CANNOT start with numeric value	0.5

2. Assignment statement is composed of two main components –variable and value, and the link between the two is the assignment operator. That said, variable declaration requires a 'data type' and variable name.

		Marks
Variable declaration	double area	1
Assignment operator	=	1
Mathematical expression	*	1
Value expression	length * breadth	1
Statement terminator	;	1
Correct answer	double area = length * breadth;	5

3. Breakdown of marks is as follows.

		Marks
Variable declaration	double average	1
Assignment operator	=	1
Mathematical expression	(mark1 + mark2)/2	1
Value expression	(mark1 + mark2)/2	1
Statement terminator	;	1
Correct answer	double average = (mark1 + mark2)/2;	5

4. There is only one correct answer, NO breakdown here :p

		Marks
int n = 1;	1	—
n++;	2	—
n*=2;	4	—
n*=3;	12	—
n--	11	—
Correct answer	11	10

5. Remember operator precedence people –tricky question this was :p

		Marks
Correct answer	The sum is 2233	10

6. Marks awarded for explanation and for valid code.

		Marks
Definition		5
Code		5
Correct answer		10

```
public static void main(String[] args) {
    Example ex = new Example();
}
```

7. Marks awarded for the definitions and examples for each.

		Marks
Primitive definition		2.5
Primitive example		2.5
Reference definition		2.5
Reference example		2.5
Correct answer		10

8. Marks awarded for the two definitions and the link between the two.

		Marks
Class definition		2.5
Object definition		2.5
Relationship		5
Correct answer		10

9. Marks awarded for definition/explanation and benefits.

		Marks
Definition		5
Benefits		5
Correct answer		10

10. Marks awarded for definition/explanation and example

		Marks
Explanation		3
Example		7
Correct answer		10

11. Marks awarded for definition/explanation and code example

		Marks
Explanation		3
Code		7
Correct answer		10

```
double[] arrayExample = new double[5];
```

12. Marks awarded to each of the three repetition statements, and syntax of each.

		Marks
for		0.5
while		0.5
do while		0.5
for syntax		3.5
while syntax		2.5
do while syntax		2.5
Correct answer		10

```
for(initialisation; termination; increment) {
    //statement(s)
}
```

```
while(boolean expression) {
    //statement(s)
}
```

```
do {
    //statement(s)
} while(boolean expression);
```

13. Marks awarded as outlined in table below.

		Marks
public modifier	public	1
Return data type	double	2
Method name	Valid method naming convention	1
Method parameters	Valid parameters –data type and names	2
Correct logic	Mathematical logic	2
Return keyword use	Return with correct answer	2
Correct answer	See code below	10

```
public double sumOfNumbers(double number1, double number2) {
    return number1 + number2;
}
```