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| 1 | **Identify and explain the error in the below code snippet.**  public static void main(String[] args) {  int num1 = 30;  int num2 = 20;  boolean result=(num1>num2) ? (num1+num2):(num1-num2);  System.out.println(result);  }  **Answer:**  **Error:**  The incorrect data type assignment  The int cannot be converted to boolean (compilation error)    Correct code :  public static void main(String[] args) {  int num1 = 30;  int num2 = 20;  int result = (num1 > num2) ? (num1 + num2) : (num1 - num2);  System.out.println(result);  }  The output of this code is so it satisfies the condition so it print the first condition  **The answer is 50** |
| 2 | **What statement should be written in place of the comment "// Write the missing statement here." to calculate the result such that it equals 6?**  public class Main {  public static void main(String[] args) {  char x = 'A';  int y = 10;  int result;  // Question: Determine the missing statement to calculate the result such that it equals 6.  // Write the missing statement here.  result = (int)x / y; // Division operation with type casting to int for x  System.out.println(result);  }  }  **Answer:**  public class Main {  public static void main(String[] args) {  char x = 'A';  int y = 10;  int result;  result = (int)x / y;  System.out.println(result);  }  }  The output of this code : 6 |
| 3 | **What will be the output of the following Java code snippet?**  public class Main {  public static void main(String[] args) {  double d = 5 / 2;  System.out.println(d);  }  }  **Answer:**The output of the following java code is **d=2.0** |
| 4 | **Identify and correct the error in the following Java program.**  public class Test {  public static void main(String[] args) {  int a = 3;  int b = 4;  int c = 20;  average = (a + b + c) / 5.0;  System.out.println(average);  }  }  **Answer:**  **Errors:**  \*average is not declared before being used  \*integer division issue  **Solution:**  Public class Test{  public static void main(String[] args) {  int a = 3;  int b = 4;  int c = 20;  double average = (a + b + c) / 3.0;  System.out.println(average);  }  } |
| 5 | **What will be the output of the following Java program?**  public static void main(String args[])  {  char a = 'A';  a++;  System.out.print((int)a);  }  **Answer:**  The character **‘A’** has an ascii value **of 65**  So the output of this program is **66** |
| 6 | **Modify the below program to get the output as shown below:**  public class IncomeCalculator {  public void main(String[] args) {  Scanner sc = new Scanner(System.in);  System.out.println("Enter the Income of Employee per day: ");  // fill in the missing code here  System.out.println("Enter the Fine Amount for days absent: ");  // fill in the missing code here  int salary = 25 \* incomeOfEmployee;  int fine = 5 \* fineAmnt;  System.out.println("The Salary of the Employee after paying the fine: ");  }  }  Output ::  Enter the Income of Employee per day:  350  Enter the Fine Amount for days absent:  30  The Salary of the Employee after paying the fine: 8600  **Answer:**  **Corrected code:**  **Import java.util.Scanner;**  public class IncomeCalculator {  public void main(String[] args) {  Scanner sc = new Scanner(System.in);  System.out.println("Enter the Income of Employee per day: ");  Int incomeOfEmployee = sc.nextInt();  System.out.println("Enter the Fine Amount for days absent: ");  Int fineAmnt = sc.nextInt();  int salary = 25 \* incomeOfEmployee;  int fine = 5 \* fineAmnt;  int finalSalary = salary-fine;  System.out.println("The Salary of the Employee after paying the fine: "+finalSalary);  sc.close();  }  } |
| 7 | **Are the below comparisons valid ? Give reasons whether they are valid or invalid**  public static void main(String[] args) {  // Initializing variables  int number1 = 23;  int number2 = 33;  float number3 = 33.0f;  // Compare the values using relational operators  System.out.println("number3 == number1 "+ (number3 == number1));  System.out.println("number3== number1 "+ (number2 == number1));  System.out.println("number2 == number3 "+ (number2 == number3));  System.out.println("number3 == number2 "+ (number3 == number2));  }  **Answer:**   1. **number3 == number1 (33.0f == 23)**      * **invalid(false) :** number3 is 33.0f (float), number 1 is 23 (int) * since 33.0f is not equal to 23 the result is **false**  1. **number2 == number1 (33==23)**     \*invalid(false): both number 2 and number 1 are integers   * since 33 is not equal to 23 , the result is **false**;  1. **number2 == number 3 (33 == 33.0f)**  * valid (true): number 2 is 33 (int) ,number 3 is 33.0f (float) * java automatically promotes int to float during comparsion which is **true**  1. **number3 == number 2 (33.0f == 33)**   valid(true) similar to the previous case number 2(int) is promoted to float making it 33.0f == 33.0f which is **true** |
| 8 | **In the given Main class, complete the missing line of code to print whether x is greater than y using the ternary operator.**  public class Main {  public static void main(String[] args) {  int x = 10;  int y = 5;  // Write a print statement using the ternary operator to determine if x is greater than y  }  }  **Answer:**  public class Main {  public static void main(String[] args) {  int x = 10;  int y = 5;  **System.out.println(x > y ? "x is greater than y" : "x is not greater than y");**  }  } |
| 9 | **Consider the code snippet and predict the output**  if(true && false && true || false)  System.out.println("True.");  else  System.out.println("False");  **Answer:**  The output of this code is **False** |
| 10 | **What will be the output of following program?**  public class temp  {  public static void main(String args[])  {  int x=10;  System.out.println( ((x=5)?"yes":"no") );  }  }  **Answer:**  The output of this program is **compilation error (int cannot be converted to Boolean)** |
| 11 | **What will be the output of the following Java program?**  public static void main(String[] args) {  for (int i = 1; i <= 10; i++)  System.out.print(++i);  }  **Answer:**  The final output of this code is **246810** |
| 12 | **Study the following Java code snippet:**  public static void main(String agrs[]) {  for(int i=1; i<=10; i++);  System.out.print(i);  }  **Identify the error in the code and explain why it occurs.**  **Answer:**   * **remove the semicolon after loop**   **code:**  public static void main(String args[]) {  for (int i = 1; i <= 10; i++) {  System.out.print(i + " ");  }  }   * **usage of I outside the loop**   **code:**  public static void main(String args[]) {  int i;  for (i = 1; i <= 10; i++);  System.out.print(i);  } |
| 13 | **What will be the output of the following Java program?**  class Test {  public static void main(String[] args) {  int x = 0;  int y = 0;  for (int z = 0; z < 5; z++) {  if ((++x > 2) && (++y > 2)) {  x++;  }  }  System.out.println(x + " " + y);  }  }  **Answer:**  **The output of this code is 7 3** |
| 14 | **What will be the output of the following Java program?**  public class Main {  public static void main(String[] args) {  int sum = 0;  for (int i = 1; i <= 5; i++) {  if (i % 2 == 0) {  sum += i;  } else {  continue;  }  }  System.out.println(sum);  }  }  **Answer:**  **The 2 and 4 are divisible by 2**  **The output of this code is (2+4)= 6** |
| 15 | **What will be the output of the following Java program justify your output?**  class Test {  public static void main(String [] args) {  int x= 0;  int y= 0;  for (int z = 0; z < 5; z++) {  if ((++x > 2) || (++y > 2)) {  x++;  }  }  System.out.println(x + " " + y);  }  }  **Answer:**  **The output of this code is 8 2** |
| 16 | **What will be the output of the following Java program?**  public class Main {  public static void main(String[] args) {  Main main = new Main();  int sum = 0;  for (int i = 1; i <= 5; i++) {  sum += main.increment(i);  }  System.out.println(sum);  }  public int increment(int num) {  return ++num;  }  }  **Answer:**  **The output of this code is 20** |
| 17 | **What will be the output of the following Java program?**  public static void main(String[] args) {  char in\_ch = 'i';  switch (in\_ch) {  case 'a':  System.out.print("monday");  case 'e':  System.out.print("tuesday");  case 'i':  System.out.print("wednesday");  case 'o':  System.out.print("thursday");  case 'u':  System.out.print("friday");  default:  System.out.print("sunday");  }  }  **Answer:**  **The output of this code is wednesdaythursdayfridaysunday** |
| 18 | **In the provided Java code snippet, the loop is intended to run only 5 times. What statement should replace the comment to ensure the loop runs only 5 times, printing the value of i in each iteration?**  public class Main {  public static void main(String[] args) {  int i = 0;  while (i < 10) {  System.out.println(i);  // Missing line goes here  }  }  }  **Answer:**    public class Main {  public static void main(String[] args) {  int i = 0;  while (i < 10) {  System.out.println(i);  If (i==4) break;  I++;  }  }  } |
| 19 | **Identify and explain the error present in the following Java code snippet:**  public class Main {  public static void main(String[] args) {  for (int i = 0; i < 5; i++) {  System.out.println(i);  continue;  }  }  }  **Answer:**  **Unnecessary Continue statement**  **Corrected code:**  public class Main {  public static void main(String[] args) {  for (int i = 0; i < 5; i++) {  System.out.println(i);  }  }  } |
| 20 | **Given the following Java code: Fill in the missing code to produce the output 10, 8, 6, 4, 2, 0.**  int i = 10;  do {  System.out.println(i);  // Missing code here  } while (/\* Missing condition here \*/);  **Answer:**  int i = 10;  do {  System.out.println(i);  i-=2;  } while (i>=0); |