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| --- | --- |
| **1** | **public class Q1** |
| **2** | **{** |
| **3** | **public static void main(String args[])** |
| **4** | **{** |
| **5** | **int x = 0, y =0;** |
| **6** | **int sum = 0;** |
| **7** | **while (x < 10){** |
| **8** | **y = x - 3;** |
| **9** | **y = 40;** |
| **10** | **while (y > 22){** |
| **11** | **if ((sum > 30) && (sum < 40))** |
| **12** | **sum = sum + x \* 2 ;** |
| **13** | **else if ((sum > 40) && (sum < 50))** |
| **14** | **sum = sum + x \* 3;** |
| **15** | **else** |
| **16** | **sum = sum + 23;** |
| **17** | **System.out.println(sum);** |
| **18** | **y = y - 10;** |
| **19** | **}** |
| **20** | **x += 2;** |
| **21** | **}** |
| **22** | **}** |
| **23** | **}** |

Line 5: x=0, y=0

Line 6: sum=0

Line 7: while (x < 10){

Line 7: while (0 < 10){

Line 7: Condition is true, going inside 1st while loop ...

Line 8: y = x - 3;

Line 8: y = 0 - 3;

Line 8: y = -3;

Line 9: y = 40;

Line 10: while (y > 22){

Line 10: while (40 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((0 > 30) && (0 < 40))

Line 11: if (false && true)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((0 > 40) && (0 < 50))

Line 13: else if (false && true)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 0 23;

Line 16: sum = 23;

Line 17: System.out.println(sum);

Line 17: System.out.println(23);

OUTPUT is = 23

Line 18: y = y - 10;

Line 18: y = 40 - 10;

Line 18: y = 30;

Line 10: while (y > 22){

Line 10: while (30 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((23 > 30) && (23 < 40))

Line 11: if (false && true)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((23 > 40) && (23 < 50))

Line 13: else if (false && true)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 23 23;

Line 16: sum = 46;

Line 17: System.out.println(sum);

Line 17: System.out.println(46);

OUTPUT is = 46

Line 18: y = y - 10;

Line 18: y = 30 - 10;

Line 18: y = 20;

Line 10: while (y > 22){

Line 10: while (20 > 22){

Line 10: condition is false, going outside 2nd while loop ...

Line 7: while (x < 10){

Line 7: while (2 < 10){

Line 7: Condition is true, going inside 1st while loop ...

Line 8: y = x - 3;

Line 8: y = 2 - 3;

Line 8: y = -1;

Line 9: y = 40;

Line 10: while (y > 22){

Line 10: while (40 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((46 > 30) && (46 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((46 > 40) && (46 < 50))

Line 13: else if (true && true)

Line 13: else if (true)

Line 13: condition is true, going inside 2nd if ...

Line 14: sum = sum + x \* 3 ;

Line 14: sum = 46 + 2 \* 3 ;

Line 14: sum = 46 + 6 ;

Line 14: sum = 52 ;

Line 17: System.out.println(sum);

Line 17: System.out.println(52);

OUTPUT is = 52

Line 18: y = y - 10;

Line 18: y = 40 - 10;

Line 18: y = 30;

Line 10: while (y > 22){

Line 10: while (30 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((52 > 30) && (52 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((52 > 40) && (52 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 52 23;

Line 16: sum = 75;

Line 17: System.out.println(sum);

Line 17: System.out.println(75);

OUTPUT is = 75

Line 18: y = y - 10;

Line 18: y = 30 - 10;

Line 18: y = 20;

Line 10: while (y > 22){

Line 10: while (20 > 22){

Line 10: condition is false, going outside 2nd while loop ...

Line 7: while (x < 10){

Line 7: while (4 < 10){

Line 7: Condition is true, going inside 1st while loop ...

Line 8: y = x - 3;

Line 8: y = 4 - 3;

Line 8: y = 1;

Line 9: y = 40;

Line 10: while (y > 22){

Line 10: while (40 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((75 > 30) && (75 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((75 > 40) && (75 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 75 23;

Line 16: sum = 98;

Line 17: System.out.println(sum);

Line 17: System.out.println(98);

OUTPUT is = 98

Line 18: y = y - 10;

Line 18: y = 40 - 10;

Line 18: y = 30;

Line 10: while (y > 22){

Line 10: while (30 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((98 > 30) && (98 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((98 > 40) && (98 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 98 23;

Line 16: sum = 121;

Line 17: System.out.println(sum);

Line 17: System.out.println(121);

OUTPUT is = 121

Line 18: y = y - 10;

Line 18: y = 30 - 10;

Line 18: y = 20;

Line 10: while (y > 22){

Line 10: while (20 > 22){

Line 10: condition is false, going outside 2nd while loop ...

Line 7: while (x < 10){

Line 7: while (6 < 10){

Line 7: Condition is true, going inside 1st while loop ...

Line 8: y = x - 3;

Line 8: y = 6 - 3;

Line 8: y = 3;

Line 9: y = 40;

Line 10: while (y > 22){

Line 10: while (40 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((121 > 30) && (121 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((121 > 40) && (121 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 121 23;

Line 16: sum = 144;

Line 17: System.out.println(sum);

Line 17: System.out.println(144);

OUTPUT is = 144

Line 18: y = y - 10;

Line 18: y = 40 - 10;

Line 18: y = 30;

Line 10: while (y > 22){

Line 10: while (30 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((144 > 30) && (144 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((144 > 40) && (144 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 144 23;

Line 16: sum = 167;

Line 17: System.out.println(sum);

Line 17: System.out.println(167);

OUTPUT is = 167

Line 18: y = y - 10;

Line 18: y = 30 - 10;

Line 18: y = 20;

Line 10: while (y > 22){

Line 10: while (20 > 22){

Line 10: condition is false, going outside 2nd while loop ...

Line 7: while (x < 10){

Line 7: while (8 < 10){

Line 7: Condition is true, going inside 1st while loop ...

Line 8: y = x - 3;

Line 8: y = 8 - 3;

Line 8: y = 5;

Line 9: y = 40;

Line 10: while (y > 22){

Line 10: while (40 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((167 > 30) && (167 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((167 > 40) && (167 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 167 23;

Line 16: sum = 190;

Line 17: System.out.println(sum);

Line 17: System.out.println(190);

OUTPUT is = 190

Line 18: y = y - 10;

Line 18: y = 40 - 10;

Line 18: y = 30;

Line 10: while (y > 22){

Line 10: while (30 > 22){

Line 10: condition is true, going inside 2nd while loop ...

Line 11: if ((sum > 30) && (sum < 40))

Line 11: if ((190 > 30) && (190 < 40))

Line 11: if (true && false)

Line 11: if (false)

Line 11: if condition is false, going to else ...

Line 13: found another if condition, checking in case this 2nd if condition is true or not

Line 13: else if ((sum > 40) && (sum < 50))

Line 13: else if ((190 > 40) && (190 < 50))

Line 13: else if (true && false)

Line 13: else if (false)

Line 13: 2nd if condition is false, going to else ...

Line 16: sum = sum + 23;

Line 16: sum = 190 23;

Line 16: sum = 213;

Line 17: System.out.println(sum);

Line 17: System.out.println(213);

OUTPUT is = 213

Line 18: y = y - 10;

Line 18: y = 30 - 10;

Line 18: y = 20;

Line 10: while (y > 22){

Line 10: while (20 > 22){

Line 10: condition is false, going outside 2nd while loop ...

Line 7: while (x < 10){

Line 7: while (10 < 10){

Line 7: Condition is false, going outside 1st while loop ...