Zachary Goss

Week 3 IT Programming Concepts

**Question 1**

**Code:**

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\* and open the template in the editor.

\*/

/\*\*

\*

\* @author Zach

\*/

import java.util.Scanner;

public class question1 {

public static void main(String[] args)

{

int number1;

int number2;

int operator;

double output;

Scanner input = new Scanner(System.in);

System.out.println("Welcome to the Operator Calculator!");

System.out.println("Please input your first integer for the calculator");

number1 = input.nextInt();

System.out.println("Thank you! Now enter the second integer for the calculator");

number2 = input.nextInt();

System.out.printf("Perfect, now please enter one of the following\n 1 to add the integers\n 2 to subtract the integers\n 3 to multiply the integers\n 4 to divide the integers\n or 5 to find the remainder for the quotient of the two integers");

operator = input.nextInt();

switch(operator)

{

case 1:

output = number1 + number2;

System.out.println("Your sum is " + output);

break;

case 2:

output = number1 - number2;

System.out.println("Your difference is " + output);

break;

case 3:

output = number1 \* number2;

System.out.println("Your product is " + output);

break;

case 4:

output = number1 / number2;

System.out.println("Your quotient is " + output);

break;

case 5:

output = number1 % number2;

System.out.println("Your remainder is " + output);

break;

default:

System.out.println("ERROR, We're sorry, it appears that you put in an incorrect operator, please run the program again with the correct operator.");

break;

}

}

}

**Addition Output:**

debug:

Welcome to the Operator Calculator!

Please input your first integer for the calculator

12

Thank you! Now enter the second integer for the calculator

42

Perfect, now please enter one of the following

1 to add the integers

2 to subtract the integers

3 to multiply the integers

4 to divide the integers

or 5 to find the remainder for the quotient of the two integers1

Your sum is 54.0

BUILD SUCCESSFUL (total time: 11 seconds)

**Subtraction Output:**

debug:

Welcome to the Operator Calculator!

Please input your first integer for the calculator

847

Thank you! Now enter the second integer for the calculator

12

Perfect, now please enter one of the following

1 to add the integers

2 to subtract the integers

3 to multiply the integers

4 to divide the integers

or 5 to find the remainder for the quotient of the two integers2

Your difference is 835.0

BUILD SUCCESSFUL (total time: 8 seconds)

**Multiplication Output:**

debug:

Welcome to the Operator Calculator!

Please input your first integer for the calculator

8

Thank you! Now enter the second integer for the calculator

8

Perfect, now please enter one of the following

1 to add the integers

2 to subtract the integers

3 to multiply the integers

4 to divide the integers

or 5 to find the remainder for the quotient of the two integers3

Your product is 64.0

BUILD SUCCESSFUL (total time: 6 seconds)

**Division Output:**

debug:

Welcome to the Operator Calculator!

Please input your first integer for the calculator

16

Thank you! Now enter the second integer for the calculator

4

Perfect, now please enter one of the following

1 to add the integers

2 to subtract the integers

3 to multiply the integers

4 to divide the integers

or 5 to find the remainder for the quotient of the two integers4

Your quotient is 4.0

BUILD SUCCESSFUL (total time: 9 seconds)

**Modulus Output:**

debug:

Welcome to the Operator Calculator!

Please input your first integer for the calculator

74

Thank you! Now enter the second integer for the calculator

3

Perfect, now please enter one of the following

1 to add the integers

2 to subtract the integers

3 to multiply the integers

4 to divide the integers

or 5 to find the remainder for the quotient of the two integers5

Your remainder is 2.0

BUILD SUCCESSFUL (total time: 9 seconds)

**Question 2**

**Code:**

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\* @author Zach

\*/

public class Question2 {

public static void main(String[] args)

{

float fahren;

float celsius;

System.out.println("Fahrenheit Celsius");

System.out.println("========== =======");

for(fahren = 0; fahren <= 100; fahren++)

{

celsius = ((fahren - 32) \* 5/9);

System.out.printf("%10.0f %7.2f\n", fahren, celsius);

}

}

}

**Output:**

debug:

Fahrenheit Celsius

========== =======

0 -17.78

1 -17.22

2 -16.67

3 -16.11

4 -15.56

5 -15.00

6 -14.44

7 -13.89

8 -13.33

9 -12.78

10 -12.22

11 -11.67

12 -11.11

13 -10.56

14 -10.00

15 -9.44

16 -8.89

17 -8.33

18 -7.78

19 -7.22

20 -6.67

21 -6.11

22 -5.56

23 -5.00

24 -4.44

25 -3.89

26 -3.33

27 -2.78

28 -2.22

29 -1.67

30 -1.11

31 -0.56

32 0.00

33 0.56

34 1.11

35 1.67

36 2.22

37 2.78

38 3.33

39 3.89

40 4.44

41 5.00

42 5.56

43 6.11

44 6.67

45 7.22

46 7.78

47 8.33

48 8.89

49 9.44

50 10.00

51 10.56

52 11.11

53 11.67

54 12.22

55 12.78

56 13.33

57 13.89

58 14.44

59 15.00

60 15.56

61 16.11

62 16.67

63 17.22

64 17.78

65 18.33

66 18.89

67 19.44

68 20.00

69 20.56

70 21.11

71 21.67

72 22.22

73 22.78

74 23.33

75 23.89

76 24.44

77 25.00

78 25.56

79 26.11

80 26.67

81 27.22

82 27.78

83 28.33

84 28.89

85 29.44

86 30.00

87 30.56

88 31.11

89 31.67

90 32.22

91 32.78

92 33.33

93 33.89

94 34.44

95 35.00

96 35.56

97 36.11

98 36.67

99 37.22

100 37.78

BUILD SUCCESSFUL (total time: 0 seconds)

**Question 3**

**Code:**

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\* @author Zach

\*/

public class question3 {

public static void main(String[] args)

{

int space;

int star;

for(space = 1; space <= 4; space++)

{

for(star = 1; star <= space; star++)

{

System.out.print("\*");

}

System.out.println();

}

}

}

**Output:**

debug:

\*

\*\*

\*\*\*

\*\*\*\*

BUILD SUCCESSFUL (total time: 0 seconds)

**Question 4**

**Code:**

/\*\*

\*

\* @author Zach

\*/

public class question3 {

public static void main(String[] args)

{

int space;

int star;

for(space = 1; space <= 4; space++)

{

for(star = 1; star <= 4; star++)

{

if(space > 4-star)

{

System.out.print("\*");

}

else

{

System.out.print(" ");

}

}

System.out.println();

}

}

}

**Output:**

debug:

\*

\*\*

\*\*\*

\*\*\*\*

BUILD SUCCESSFUL (total time: 0 seconds)

**Question 5**

**Code:**

// @author Zach

public class Question5 {

public static void main(String[] args)

{

int result = 1;

int product;

for(product = 1; product < 12; product++)

{

result \*= product;

product++;

System.out.println(result);

}

}

}

**Output:**

debug:

1

3

15

105

945

10395

BUILD SUCCESSFUL (total time: 0 seconds)