**EASY**

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| Create a program that when a user enters a number it will determine if a number is an odd or even number | Enter a number = 30  Output: Even  Enter a number 11:  Output: Odd |

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| Create a program that tells if a given dimension is a square or rectangle | Enter x: 10  Enter y: 10 Output: It’s a square  Enter x: 5 Enter y: 13 Output: It’s a rectangle |

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| Create a program that when a user enters a number it will generate (print) a multiplication number from 1-5 | Enter a number = 3  3 \* 1 = 3  3 \* 2 = 6  3 \* 3 = 9  3 \* 4 = 12  3 \* 5 = 15 |

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| Write a program that asks the user for a number n and prints the sum of the numbers 1 to n For example Enter a number: 5 Output: 15  1+2+3+4+5=15 | Enter a number: 5 Output: 15 Enter a number: 8 Output: 36 |

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| Write a program that asks the user for their name and greets them with their name  Format:  Hello “name” ! :> | Enter Name: Fox Output: Hello “Fox” ! :> |

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| Create a program that tells if a string is a palindrome or not  a word, phrase, or sequence that reads the same backward as forward, e.g., madam, redivider, deified, civic, radar, level, rotor, kayak, reviver, racecar, redder, madam, and refer | Test Case  Madam -> True  A -> True  Hello -> False  ReDivider -> True,  deified -> True |

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| Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers | Input first number: 125  Input second number: 24  Expected Output :  Sum: 149  Diff: 101  Product: 3000  Quotient: 5  Remainder: 5 |

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| Write a Java program to print the area and perimeter of a rectangle. | Width = 5.5  Height = 8.5  Area: 47.60  Perimeter: 28.20 |

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| Write a Java program to print the following string in a specific format (see the output) |  |

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| Write a Java program that accepts three integers from the user and prints equal if all four are equal, and not equal otherwise | Input first number: 10  Input second number: 10  Input third number: 10  Input fourth number: 10  Numbers are equal.  Input first number: 7  Input second number: 7  Input third number: 7  Input fourth number: 9  Numbers are not equal! |

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| Create a function/program that checks whether a string has(have) a vowel(s)  Output true if the string has vowels  Output false if it has no vowels | Enter string: “ABCDE”  Output: True  Enter string: “CRY” Output: False |

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| Create a function/program that checks if a string contains numbers or digit  Output True if the string has a digit  Output False if the string has no digit | Enter string: “123ABC13”  Output: True Enter string: “ABC12”  Output: True  Enter string: “OOBCD”  Output: False |

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| Create a program that prints a box based on the user’s input | Enter size: 3 \*\*\* \*\*\* \*\*\*  Enter the size: 5 \*\*\*\*\*  \*\*\*\*\*  \*\*\*\*\*  \*\*\*\*\*  \*\*\*\*\* |

**MEDIUM**

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| Write a short program that prints each number from 1 to (a number that inputted by the user) on a new line.  For each multiple of 3, print "Fizz" instead of the number.  For each multiple of 5, print "Buzz" instead of the number.  For numbers which are multiples of both 3 and 5, print "FizzBuzz" instead of the number. | Enter a number: 20  1  2  fizz  4  buzz  fizz  7  8  fizz  buzz  11  fizz  13  14  fizzbuzz  16  17  fizz  19  buzz |

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| Pattern printing programs contains Star Pattern, Number Pattern and Character Pattern printing. | Enter a number: 5  Output: |

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| Given a string, you need to reverse the order of characters in each word within a sentence while still preserving whitespace and initial word order.  Note: In the string, each word is separated by single space and there will not be any extra space in the string. | Example 1:  **Input: "The cat in the hat"**  **Output: "ehT tac ni eht tah"** |

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| Always starts from 0 | Number of Turns: 2  Output: 2  Number of Turns: -4  Output: 8  Number of Turns: 17  Output: 5  Number of Turns: -13  Output: 11 |

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| Implement a function that adds two numbers together and returns their sum in binary. The conversion can be done before, or after the addition. | The binary number returned should be a string.  add\_binary(2,10) -> “1100”  add\_binary(1,1) -> “10”  add\_binary(3,200) -> “11001011”  add\_binary(0,1) -> “1” |

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| PROBLEM Given an integer as input, can you round it to the next (meaning, "higher") 5? | input: output:  0 -> 0  2 -> 5  3 -> 5  12 -> 15  21 -> 25  30 -> 30  -2 -> 0  -5 -> -5 |

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| Given the triangle of consecutive odd numbers:  Create a function **row\_sum\_odd\_numbers()** that calculates the row sums of this triangle from the row index (starting at index 1) e.g.: | Sample Case:  row\_sum\_odd\_numbers(1); # 1  row\_sum\_odd\_numbers(2); # 3 + 5 = 8 |