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   "### 1. Find the Largest of Two Numbers\n",
   "**Task:** Given two numbers, find the larger one. \n",
   "**Demo Input:** 5 and 6 <br>\n",
   "**Output:** 6\n"
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    "a = int(input(\"6\"))\n",
   "b = int(input(\"5\"))\n",
   "if a > b: n",
       print(\"The larger number is:\", a)\n",
   "else:\n",
       print(\"The larger number is:\", b)"
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    "### 2. Print Numbers from 1 to N\n",
    "**Task**: Given a number `n`, print all numbers from 1 to `n`. <br>
"**Demo Output**: 1 2 3 4 5\n"
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```
"1\n",
    "2\n",
    "3\n",
   "4\n",
   "5\n"
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 "n = 5\n",
  "for i in range(1, n+1):\n",
 " print(i)"
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 "### 3. Check if a Number is Positive or Negative\n",
  "**Task**: Determine if the input number is positive, negative, or
 "**Demo Input**: `-3` \n",
  "**Demo Output**: `The number is Negative`"
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   "The number is Negative\n"
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 "n = -3 \ln",
 "if n < 0: n",
      print( \"The number is Negative\") \n",
       \n"
]
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 "### 4. Calculate the Sum of Digits\n",
 "**Task**: Given a number, find the sum of its digits. \n",
 "**Demo Input**: `123` \n",
 "**Demo Output**: `6` \n",
  "(Explanation: `1+2+3=6`)"
 1
```

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  "def sum of digits(n):\n",
  " sum = 0 \n",
       while (n != 0) : \n",
         sum = sum + (n % 10) \n",
          n = n//10 \n",
     return sum\n",
  "\n",
  "number = 123\n",
  "result = sum_of_digits(number)\n",
  "print(result)"
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  "### 5. Find Factorial of a Numbern",
  "**Task**: Calculate the factorial of a given number. \n",
 "**Demo Input**: `4` \n",
"**Demo Output**: `24` \n",
  "(Explanation: 4! = 4*3*2*1 = 24)"
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   "The factorial of 4 is 24\n"
   1
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  "def factorial(n):\n",
  " \"\"Calculates the factorial of a non-negative integer.\n",
  "\n",
```

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" Args:\n",
        n: The non-negative integer for which to calculate the
factorial.\n",
   "\n",
   " Returns:\n",
        The factorial of n.\n",
      \"\"\"\n",
      if n == 0: n'',
        return 1 # Base case: factorial of 0 is 1\n",
      else:\n",
    "
        result = 1\n'',
    **
         for i in range(1, n + 1):\n",
    **
          result *= i\n",
        return result\n",
   "\n",
    "# Get input from the usern",
    "number = 4 \n",
    "# Calculate the factorial\n",
    "result = factorial(number)\n",
    "\n",
    "# Print the result\n",
    "print(f\"The factorial of {number} is {result}\")"
  1
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    "### 6. Count Occurrences of a Digit\n",
    "**Task**: Count how many times a specific digit appears max in a
number. \n",
    "**Demo Input**: 1233321 <br>\n",
    "**Demo Output**: `3` <br>\n",
   "(Explanation: `3` appears 3 times in `1233321`)"
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   "number = \"1233321\"\n",
   "digit to count = '3'\n",
   "count = number.count(digit to count)\n",
    "print(count)"
  ]
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    "### 7. Find the GCD of Two Numbers\n",
    "**Task**: Find the greatest common divisor (GCD) of two numbers.
\n",
    "**Demo Input**: 8 and 12 <br>\n",
    "**Demo Output**: `4`"
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     "The GCD of 8 and 12 is: 4\n"
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   "source": [
    "import math\n",
    "int1 = 8 \ln",
    "int2 = 12 \times n",
    "gcd value = math.gcd(8, 12)\n",
    "print(f\"The GCD of \{8\} and \{12\} is: \{gcd\_value\}\")"
   ]
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    "### 8. Reverse a String\n",
    "**Task**: Reverse the given string.
    "**Demo Input**: `\"aiquest\"` \n",
"**Demo Output**: `\"tseuqia\"`"
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     1
    }
```

```
],
   "source": [
    "input_string = \"aiquest\"\n",
    "reversed string = input string[::-1]\n",
    "print(reversed string)"
   1
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    "### 9. Check Armstrong Number\n",
    "**Task**: Check if a number is an Armstrong number (the sum of its
digits raised to the power of the number of digits equals the number).
\n",
    "**Demo Input**: `153` \n",
"**Demo Output**: `153 is an Armstrong Number`
    "(Explanation: \ \ (1^3 + 5^3 + 3^3 = 153 \))"
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    "def is armstrong(num):\n",
         num str = str(num) n'',
    "
         n = len(num str) \n",
    **
         sum = 0 \n'',
          for digit in num str:\n",
              sum += int(\overline{\text{digit}}) **n\n",
          if sum == num:\n",
    "
              return True\n",
    "
         else:\n",
              return False\n",
    "num=153\n",
    "print(is_armstrong(num))"
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    "### 10. Generate a Pattern\n",
    "**Task**: Print a pyramid pattern with `n` rows. \n",
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```
"**Demo input:** 4 <br>\n",
  "**Output:** You will see the pyramid pattern with 4 rows"
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    " ***\n",
    " ****\n",
    "*****\n"
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  "# Function to print full pyramid pattern\n",
   "def full_pyramid(n):\n",
        for i in range(1, n + 1):\n",
            # Print leading spaces\n",
            for j in range(n - i):\n",
               print(\" \", end=\"\")\n",
   **
            \n",
            # Print asterisks for the current row\n",
            for k in range (1, 2*i): n",
                print(\"*\", end=\"\") \n",
   **
            print()\n",
       \n",
  "full_pyramid(4)"
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