DATASETS TOPICS

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Table of
Category
(Each Category
Contains 10 Examples)

BASIC MATH OPERATIONS

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1. CHECK EVEN OR ODD

2. FIND FACTORIAL

3. CHECK PRIME NUMBER

4. FIND GREATEST OF TWO NUMBERS

5. FIND SMALLEST OF THREE NUMBERS

6. SQUARE OF A NUMBER

7. CUBE OF A NUMBER

8. SUM OF FIRST N NATURAL NUMBERS

9. MULTIPLY TWO NUMBERS

10. CHECK IF NUMBER IS POSITIVE, NEGATIVE, OR ZERO

String Manipulation

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11. REVERSE A STRING

12. CHECK PALINDROME STRING

13. COUNT VOWELS IN A STRING

14. COUNT CONSONANTS

15. REMOVE SPACES FROM A STRING

16. CONVERT STRING TO UPPERCASE

17. CONVERT STRING TO LOWERCASE

18. COUNT WORDS IN A SENTENCE

19. FIND LENGTH OF A STRING

20. REPLACE CHARACTER IN A STRING

list operations

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21. **FIND MAXIMUM ELEMENT**

22. **FIND MINIMUM ELEMENT**

23. **SUM OF ELEMENTS IN LIST**

24. **SORT LIST ASCENDING**

25. **SORT LIST DESCENDING**

26. **REMOVE DUPLICATES FROM LIST**

27. **COUNT FREQUENCY OF AN ELEMENT**

28. **REVERSE A LIST**

29. **FIND SECOND LARGEST ELEMENT**

30. **CHECK IF LIST IS EMPTY**

31. **FIND THE INDEX OF AN ELEMENT IN A LIST**

32. **CALCULATE THE AVERAGE OF NUMBERS IN A LI ST.**

loop based problems

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33. PRINT NUMBERS FROM 1 TO N

34. PRINT MULTIPLICATION TABLE

35. PRINT EVEN NUMBERS IN A RANGE

36. PRINT ODD NUMBERS IN A RANGE

37. COUNT DIGITS IN A NUMBER

38. SUM OF DIGITS

39. PRODUCT OF DIGITS

40. PRINT ALL CHARACTERS OF A STRING

41. PRINT NUMBERS DIVISIBLE BY 3

42. PRINT SQUARES OF NUMBERS

Function-Based Tasks

43. CALCULATE THE AREA OF A CIRCLE

44. FIND THE AREA OF A RECTANGLE

45. FIND THE PERIMETER OF A RECTANGLE

46. FIND THE SQUARE ROOT OF A NUMBER

47. CALCULATE THE CIRCUMFERENCE OF A CIRCLE

48. CONVERT CELSIUS TO FAHRENHEIT

49. CONVERT FAHRENHEIT TO CELSIUS

50. CALCULATE SIMPLE INTEREST

51. CONVERT MINUTES TO HOURS AND MINUTES

Conditional Logic Problems

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Basic Algorithms

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Dictionary
Operations

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File Handling Tasks

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82. READ TEXT FILE

83. WRITE TO A FILE

84. COUNT LINES IN A FILE

85. COUNT WORDS IN A FILE

86. COUNT CHARACTERS IN A FILE

87. COPY CONTENTS OF ONE FILE TO ANOTHER

88. APPEND TEXT TO FILE

89. FIND LONGEST WORD IN A FILE

90. REMOVE BLANK LINES FROM FILE

91. CHECK IF FILE EXISTS

Miscellaneous Logic Problems

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92. FIBONACCI SEQUENCE

93. ARMSTRONG NUMBER

94. STRONG NUMBER

95. PERFECT NUMBER

96. SUM OF SERIES 1 + 2 + 3...

97. FIND GCD OF TWO NUMBERS

98. FIND LCM OF TWO NUMBERS

99. CONVERT DECIMAL TO BINARY

100. CONVERT BINARY TO DECIMAL

101. RANDOM NUMBER GUESSING GAME