Math and Trigonometry Functions:

1. SUM: Adds up all the numbers in a range.

2. AVERAGE: Calculates the average of a range of numbers.

3. MAX: Returns the largest number in a range.

4. MIN: Returns the smallest number in a range.

5. ROUND: Rounds a number to a specified number of decimal places.

6. ABS: Returns the absolute value of a number.

7. SQRT: Calculates the square root of a number.

8. POWER: Raises a number to a specified power.

9. MOD: Returns the remainder after division.

10. INT: Rounds a number down to the nearest integer.

11. RAND: Generates a random number between 0 and 1.

12. SUMPRODUCT: Multiplies corresponding elements in arrays and returns the sum of those products.

Text Functions: 13. CONCATENATE: Combines multiple text strings into one.

14. LEFT: Extracts a specified number of characters from the beginning of a text string.

15. RIGHT: Extracts a specified number of characters from the end of a text string.

16. MID: Extracts a specific number of characters from the middle of a text string.

17. LEN: Returns the number of characters in a text string.

18. UPPER: Converts text to uppercase.

19. LOWER: Converts text to lowercase.

20. PROPER: Capitalizes the first letter of each word in a text string.

21. TRIM: Removes extra spaces from a text string.

Date and Time Functions: 22. TODAY: Returns the current date.

23. NOW: Returns the current date and time.

24. DATE: Creates a date value based on year, month, and day.

25. TIME: Creates a time value based on hours, minutes, and seconds.

26. DATEDIF: Calculates the difference between two dates in various units.

27. DAY, MONTH, YEAR: Extracts the day, month, or year from a date.

28. HOUR, MINUTE, SECOND: Extracts the hour, minute, or second from a time.

Logical Functions: 29. IF: Returns one value if a condition is true and another if it's false.

30. AND: Returns TRUE if all specified conditions are true.

31. OR: Returns TRUE if at least one of the specified conditions is true.

32. NOT: Returns the opposite of a logical value (TRUE becomes FALSE and vice versa).

33. IFERROR: Returns a specified value if a formula results in an error.

Lookup and Reference Functions: 34. VLOOKUP: Searches for a value in a table and returns a corresponding value from a specified column.

35. HLOOKUP: Similar to VLOOKUP but searches horizontally.

36. INDEX: Returns the value of a cell in a specified row and column.

37. MATCH: Searches for a value in a range and returns its relative position.

38. OFFSET: Returns a cell or range of cells that is a specified number of rows and columns from a given reference point.

Statistical Functions: 39. COUNT: Counts the number of cells that contain numbers in a range.

40. COUNTA: Counts the number of non-empty cells in a range.

41. SUMIF: Adds up values in a range based on a single condition.

42. AVERAGEIF: Calculates the average of values in a range based on a condition.

43. COUNTIF: Counts the number of cells that meet a single condition.

44. AVERAGEIFS: Calculates the average of values in a range based on multiple conditions.

Financial Functions: 45. PMT: Calculates the periodic payment for a loan or investment.

46. NPV: Calculates the net present value of an investment.

47. IRR: Calculates the internal rate of return for an investment.

48. FV: Calculates the future value of an investment.

49. PV: Calculates the present value of an investment.

50. RATE: Calculates the interest rate for a loan or investment.

These are just some of the many functions available in Excel, each serving specific purposes for data analysis, calculations, and manipulation of text, dates, and numbers. Excel's functions make it a powerful tool for a wide range of tasks and scenarios.