Here are examples of each formula in Excel with real data:

1. SUM Formula

Formula: =SUM(A1:A5)
Example Data: A1 = 10, A2 = 20, A3 = 30, A4 = 40, A5 = 50
Result: 150

2. AVERAGE Formula

Formula: =AVERAGE(B1:B5)
Example Data: B1 = 15, B2 = 25, B3 = 35, B4 = 45, B5 = 55
Result: 35

3. COUNT Formula

Formula: =COUNT(C1:C5)
Example Data: C1 = 5, C2 = 10, C3 = "Text", C4 = 15, C5 = 20
Result: 4 (Counts only numbers)

4. MAX Formula

Formula: =MAX(D1:D5)
Example Data: D1 = 3, D2 = 7, D3 = 2, D4 = 9, D5 = 5
Result: 9

5. MIN Formula

Formula: =MIN(E1:E5)
Example Data: E1 = 8, E2 = 12, E3 = 6, E4 = 15, E5 = 10
Result: 6

6. IF Formula

Formula: =IF(F1>50, "Pass", "Fail")
Example Data: F1 = 55
Result: "Pass"

7. VLOOKUP Formula

Formula: =VLOOKUP(103, A1:B5, 2, FALSE)
Example Data:

A	B
101	John
102	Alice
103	Mark
104	Steve

Result: "Mark"

8. CONCATENATE Formula

Formula: =CONCATENATE("Hello ", "World")
Result: "Hello World"

9. TODAY Formula

Formula: =TODAY()
Result: (Current Date, e.g., 03-Feb-2025)

10. LEN Formula

Formula: =LEN(H1)
Example Data: H1 = "Excel"
Result: 5

11. TRIM Formula

Formula: =TRIM(I1)
Example Data: I1 = " Hello World "
Result: "Hello World" (Removes extra spaces)

12. LEFT Formula

Formula: =LEFT(J1, 4)
Example Data: J1 = "Microsoft"
Result: "Micr"

13. RIGHT Formula

Formula: =RIGHT(K1, 3)
Example Data: K1 = "Software"
Result: "are"

14. MID Formula

Formula: =MID(L1, 3, 4)
Example Data: L1 = "Learning"
Result: "arni" (Starts from 3rd character and extracts 4 characters)

15. UPPER Formula

Formula: =UPPER(M1)
Example Data: M1 = "hello"
Result: "HELLO"

16. LOWER Formula

Formula: =LOWER(N1)
Example Data: N1 = "WELCOME"
Result: "welcome"

17. PROPER Formula

Formula: =PROPER(O1)
Example Data: O1 = "good morning"
Result: "Good Morning"

18. ROUND Formula

Formula: =ROUND(P1, 2)
Example Data: P1 = 12.5678
Result: 12.57

19. COUNTIF Formula

Formula: =COUNTIF(Q1:Q5, ">50")
Example Data: 45, 60, 72, 30, 85
Result: 3 (Counts values greater than 50)

20. SUMIF Formula

Formula: =SUMIF(R1:R5, "Apples", S1:S5)
Example Data:

R   S

Apples   10

Bananas 15

Apples   20

Result: 30 (Sum of "Apples")

21. AVERAGEIF Formula

Formula: =AVERAGEIF(T1:T5, "Red", U1:U5)
Example Data:

T   U

Red   30

Blue   20

Red   40

Result: 35

22. IFERROR Formula

Formula: =IFERROR(10/0, "Error")
Result: "Error" (Handles division by zero)

23. INDEX Formula

Formula: =INDEX(A1:B3, 2, 1)
Example Data:

A   B

1 X

2 Y

3 Z

Result: 2

24. MATCH Formula

Formula: =MATCH(30, A1:A5, 0)
Example Data: 10, 20, 30, 40, 50
Result: 3 (Position of 30)

25. INDIRECT Formula

Formula: =INDIRECT("A"&5)
Example Data: A5 = 100
Result: 100

26. COUNTIFS Formula

Formula: =COUNTIFS(A1:A5, ">50", B1:B5, "<100")
Example Data:

A   B

60 80

70 90

40 50

Result: 2

27. SUMIFS Formula

Formula: =SUMIFS(C1:C5, A1:A5, ">50", B1:B5, "<100")
Example Data:

A   B   C

60 80 10

70 90 20

40 50 30

Result: 30

28. RAND Formula

Formula: =RAND()
Result: 0.4823 (Random number between 0 and 1)

29. RANDBETWEEN Formula

Formula: =RANDBETWEEN(1, 100)
Result: 78 (Random number between 1 and 100)

30. NOW Formula

Formula: =NOW()
Result: 03-Feb-2025 10:15 AM (Current date & time)

These examples should help in understanding how each formula works in Excel! 🚀

Here are **examples of Excel formulas from 30 to 59** with real data and explanations:

---

30. CHOOSE Formula

Formula: =CHOOSE(2, "Apple", "Banana", "Cherry")
Result: "Banana" (Chooses the 2nd item from the list)

---

31. TEXT Formula

Formula: =TEXT(A1, "DD-MMM-YYYY")
Example Data: A1 = 03/02/2025
Result: "03-Feb-2025"

---

32. REPT Formula

Formula: =REPT("*", 5)
Result: "*****" (Repeats * five times)

---

33. SUBSTITUTE Formula

Formula: =SUBSTITUTE("Hello World", "World", "Excel")
Result: "Hello Excel" (Replaces "World" with "Excel")

---

34. FIND Formula

Formula: =FIND("o", "Notebook")
Result: 2 (Position of first "o" in "Notebook")

---

35. SEARCH Formula

Formula: =SEARCH("book", "Notebook")
Result: 5 (Search is case-insensitive)

---

36. EXACT Formula

Formula: =EXACT("Excel", "excel")
Result: FALSE (Case-sensitive comparison)

---

37. VALUE Formula

Formula: =VALUE("100")
Result: 100 (Converts text to a number)

---

38. CODE Formula

Formula: =CODE("A")
Result: 65 (ASCII code of "A")

---

39. CHAR Formula

Formula: =CHAR(65)
Result: "A" (Character for ASCII 65)

---

40. ROMAN Formula

Formula: =ROMAN(2025)
Result: "MMXXV" (Converts 2025 to Roman numeral)

---

41. DECIMAL Formula

Formula: =DECIMAL("1010", 2)
Result: 10 (Binary "1010" to decimal)

---

42. BASE Formula

Formula: =BASE(10, 2)
Result: **"1010" (Decimal 10` to binary)

---

43. MOD Formula

Formula: =MOD(10, 3)
Result: 1 (Remainder of 10 ÷ 3)

---

44. QUOTIENT Formula

Formula: =QUOTIENT(10, 3)
Result: 3 (Integer division)

---

45. POWER Formula

Formula: =POWER(5, 2)
Result: 25 (5^2)

46. SQRT Formula

Formula: =SQRT(25)
Result: 5 (Square root of 25)

---

47. ABS Formula

Formula: =ABS(-10)
Result: 10 (Absolute value)

---

48. ROUNDUP Formula

Formula: =ROUNDUP(12.345, 2)
Result: 12.35 (Rounds up to 2 decimals)

---

49. ROUNDDOWN Formula

Formula: =ROUNDDOWN(12.345, 2)
Result: 12.34 (Rounds down to 2 decimals)

---

50. CEILING Formula

Formula: =CEILING(23.3, 5)
Result: 25 (Rounds up to nearest multiple of 5)

---

51. FLOOR Formula

Formula: =FLOOR(23.3, 5)
Result: 20 (Rounds down to nearest multiple of 5)

---

52. EVEN Formula

Formula: =EVEN(23)
Result: 24 (Rounds up to nearest even number)

---

53. ODD Formula

Formula: =ODD(22)
Result: 23 (Rounds up to nearest odd number)

---

54. LARGE Formula

Formula: =LARGE(A1:A5, 2)
Example Data: A1 = 10, A2 = 50, A3 = 30, A4 = 70, A5 = 90
Result: 70 (2nd largest number)

---

55. SMALL Formula

Formula: =SMALL(A1:A5, 2)
Example Data: A1 = 10, A2 = 50, A3 = 30, A4 = 70, A5 = 90
Result: 30 (2nd smallest number)

---

56. RANK Formula

Formula: =RANK(50, A1:A5, 0)
Example Data: A1 = 10, A2 = 50, A3 = 30, A4 = 70, A5 = 90
Result: 3 (Rank of 50 in descending order)

---

57. TRANSPOSE Formula

Formula: =TRANSPOSE(A1:A3)
Example Data: A1 = 1, A2 = 2, A3 = 3
Result: Row {1, 2, 3} (Converts column to row)

---

58. UNIQUE Formula

Formula: =UNIQUE(A1:A6)
Example Data: A1 = Apple, A2 = Banana, A3 = Apple, A4 = Mango, A5 = Banana, A6 = Orange
Result: Apple, Banana, Mango, Orange (Removes duplicates)

---

59. FILTER Formula

Formula: =FILTER(A1:B5, B1:B5>50)
Example Data:

A   B

John   45

Alice   60

Mark   72

Steve   30

Result:

Alice 60

Mark 72

(Filters values greater than 50)

This covers **formulas 30 to 59** with clear **examples** and **results**. Let me know if you need more! 🚀

Here are **examples of Excel formulas from 60 to 80** with real data and explanations:

---

60. SORT Formula

Formula: =SORT(A1:A5, 1, 1)
Example Data:

A

50

20

80

10

40

Result:

10

20

40

50

80

(Sorts the column in ascending order)

---

61. SORTBY Formula

Formula: =SORTBY(A1:A5, B1:B5, 1)
Example Data:

A   B

Apple   3

Mango   1

Banana 2

Result:

Mango

Banana

Apple

(Sorts based on column B)

---

62. SEQUENCE Formula

Formula: =SEQUENCE(5,1,10,2)
Result:

10

12

14

16

18

(Generates a sequence starting at 10, step 2)

---

63. RAND Formula

Formula: =RAND()
Result: 0.6789 (Generates a random number between 0 and 1)

---

64. RANDBETWEEN Formula

Formula: =RANDBETWEEN(1,100)
Result: 42 (Generates a random number between 1 and 100)

---

65. TODAY Formula

Formula: =TODAY()
Result: 03-Feb-2025 (Returns today's date)

---

66. NOW Formula

Formula: =NOW()
Result: 03-Feb-2025 10:30 AM (Returns current date and time)

---

67. YEAR Formula

Formula: =YEAR(A1)
Example Data: A1 = 03/02/2025
Result: 2025 (Extracts the year)

68. MONTH Formula

Formula: =MONTH(A1)
Example Data: A1 = 03/02/2025
Result: 2 (Extracts the month)

69. DAY Formula

Formula: =DAY(A1)
Example Data: A1 = 03/02/2025
Result: 3 (Extracts the day)

70. HOUR Formula

Formula: =HOUR(A1)
Example Data: A1 = 03-Feb-2025 14:35
Result: 14 (Extracts the hour)

71. MINUTE Formula

Formula: =MINUTE(A1)
Example Data: A1 = 03-Feb-2025 14:35
Result: 35 (Extracts the minutes)

72. SECOND Formula

Formula: =SECOND(A1)
Example Data: A1 = 03-Feb-2025 14:35:45
Result: 45 (Extracts the seconds)

73. WEEKDAY Formula

Formula: =WEEKDAY(A1, 1)
Example Data: A1 = 03/02/2025
Result: 2 (Monday as the 2nd day of the week)

74. WEEKNUM Formula

Formula: =WEEKNUM(A1)
Example Data: A1 = 03/02/2025
Result: 6 (Week number in the year)

75. EOMONTH Formula

Formula: =EOMONTH(A1, 1)
Example Data: A1 = 03/02/2025
Result: 31-Mar-2025 (Last day of next month)

---

76. DATEDIF Formula

Formula: =DATEDIF(A1, B1, "Y")
Example Data: A1 = 01/01/2000, B1 = 01/01/2025
Result: 25 (Years difference)

---

77. NETWORKDAYS Formula

Formula: =NETWORKDAYS(A1, B1)
Example Data: A1 = 01/02/2025, B1 = 10/02/2025
Result: 7 (Excludes weekends)

---

78. WORKDAY Formula

Formula: =WORKDAY(A1, 5)
Example Data: A1 = 03/02/2025
Result: 10-Feb-2025 (Adds 5 working days)

---

79. IFERROR Formula

Formula: =IFERROR(A1/B1, "Error!")
Example Data: A1 = 10, B1 = 0
Result: "Error!" (Prevents division by zero error)

---

80. ISERROR Formula

Formula: =ISERROR(A1/B1)
Example Data: A1 = 10, B1 = 0
Result: TRUE (Checks for error)

This covers **formulas 60 to 80** with clear **examples** and **results**. Let me know if you need more! 🚀

Here are **Excel formulas from 80 to 90** with examples:

---

81. ISNUMBER Formula

Formula: =ISNUMBER(A1)
Example Data:

- A1 = 123 → **Result:** TRUE

- A1 = "Hello" → **Result:** FALSE
  (Checks if the value is a number)

---

82. ISTEXT Formula

Formula: =ISTEXT(A1)
Example Data:

- A1 = "Excel" → **Result:** TRUE

- A1 = 50 → **Result:** FALSE
  (Checks if the value is text)

---

83. ISBLANK Formula

Formula: =ISBLANK(A1)
Example Data:

- A1 is empty → **Result:** TRUE

- A1 contains Hello → **Result:** FALSE
  (Checks if the cell is blank)

---

84. INDIRECT Formula

Formula: =INDIRECT("B2")
Example Data:

- B2 = Hello
  Result: Hello
  (Returns the value from a referenced cell)

---

85. ADDRESS Formula

Formula: =ADDRESS(2,3)
Result: C2
(Returns the cell address based on row and column numbers)

---

86. ROW Formula

Formula: =ROW(A5)
Result: 5
(Returns the row number of a given cell)

87. COLUMN Formula

Formula: =COLUMN(D1)
Result: 4
(Returns the column number)

---

88. TRANSPOSE Formula

Formula: =TRANSPOSE(A1:A3)
Example Data:

A

Apple

Banana

Mango

Result (Horizontally):

Apple   Banana   Mango

(Converts vertical data to horizontal)

---

89. UNIQUE Formula

Formula: =UNIQUE(A1:A6)
Example Data:

A

Apple

Banana

Apple

Mango

Banana

Orange

Result:

Apple

Banana

Mango

Orange

(Removes duplicates)

---

90. FILTER Formula

Formula: =FILTER(A1:A5, B1:B5>50)
Example Data:

A   B

Apple   30

Mango   60

Banana 80

Orange 45

Result:

Mango

Banana

(Filters values based on condition)

This covers **formulas 80 to 90** with **examples and results**. Let me know if you need more! 🚀

Here are **Excel formulas from 90 to 100** with examples:

---

91. SORT Formula

Formula: =SORT(A1:A5, 1, 1)
Example Data:

Apple

Mango

Banana

Orange

Grapes

Result:

Apple

Banana

Grapes

Mango

Orange

(Sorts the range in ascending order)

---

92. SORTBY Formula

Formula: =SORTBY(A1:A5, B1:B5, 1)
Example Data:

A   B

Apple   50

Mango   30

Banana 80

Orange 40

Result (sorted by column B):

Mango

Orange

Apple

Banana

(Sorts based on another column)

---

93. SEQUENCE Formula

Formula: =SEQUENCE(5,1,1,1)
Result:

1

2

3

4

5

(Generates a sequence of numbers)

---

94. RAND Formula

Formula: =RAND()
Result: 0.4762 (Random number between 0 and 1)
(Generates a random decimal)

---

95. RANDBETWEEN Formula

Formula: =RANDBETWEEN(10,100)
Result: 45 (Any number between 10 and 100)
(Generates a random whole number)

---

96. XLOOKUP Formula

Formula: =XLOOKUP(80, B1:B5, A1:A5)
Example Data:

A   B

Apple   50

Mango   30

Banana 80

Orange 40

Result: Banana
(Finds the value in a list)

---

97. XMATCH Formula

Formula: =XMATCH(80, B1:B5)
Example Data:

A   B

Apple   50

Mango   30

Banana 80

Orange 40

Result: 3 (Position of 80 in column B)
(Finds the position in a list)

---

98. TEXTJOIN Formula

Formula: =TEXTJOIN(", ", TRUE, A1:A4)
Example Data:

Apple

Mango

Banana

Orange

Result: "Apple, Mango, Banana, Orange"
(Joins text values with a separator)

---

99. CONCAT Formula

Formula: =CONCAT(A1:A3)
Example Data:

Apple

Mango

Banana

Result: "AppleMangoBanana"
(Joins text values without separators)

---

100. LET Formula

Formula:

=LET(x, 10, y, 20, x + y)

Result: 30
(Defines variables and performs calculations)

This covers **formulas 90 to 100** with **examples and results**. Let me know if you need more! 🚀

1. SUM formula:

 Example: =SUM(A1:A5)

 This formula adds up the values in cells A1 to A5.

2. AVERAGE formula:

 Example: =AVERAGE(B1:B10)

 This formula calculates the average of the values in cells B1 to B10.

3. COUNT formula:

 Example: =COUNT(C1:C8)

 This formula counts the number of cells that contain numerical values in the range C1 to C8.

4. MAX formula:

Example: =MAX(D1:D6)

This formula finds the maximum value in the range D1 to D6.

5. MIN formula:

Example: =MIN(E1:E4)

This formula finds the minimum value in the range E1 to E4.

6. IF formula:

Example: =IF(F1>10, "Pass", "Fail")

This formula checks if the value in cell F1 is greater than 10. If it is, it returns "Pass"; otherwise, it returns "Fail".

7. VLOOKUP formula:

Example: =VLOOKUP(G1, A1:B10, 2, FALSE)

This formula looks for the value in cell G1 in the first column of the range A1 to B10 and returns the corresponding value from the second column.

8. CONCATENATE formula:

Example: =CONCATENATE("Hello ", "World")

This formula combines the text "Hello" and "World" to create the string "Hello World".

9. TODAY formula:

Example: =TODAY()

This formula returns the current date.

10. LEN formula:

Example: =LEN(H1)

This formula calculates the number of characters in the text contained in cell H1.

11. TRIM formula:

Example: =TRIM(I1)

This formula removes excess spaces from the text in cell I1.

12. LEFT formula:

Example: =LEFT(J1, 5)

This formula extracts the leftmost 5 characters from the text in cell J1.

13. RIGHT formula:

Example: =RIGHT(K1, 3)

This formula extracts the rightmost 3 characters from the text in cell K1.

14. MID formula:

Example: =MID(L1, 3, 5)

This formula extracts 5 characters starting from the 3rd character of the text in cell L1.

15. UPPER formula:

Example: =UPPER(M1)

This formula converts the text in cell M1 to uppercase.

16. LOWER formula:

Example: =LOWER(N1)

This formula converts the text in cell N1 to lowercase.

17. PROPER formula:

Example: =PROPER(O1)

This formula capitalizes the first letter of each word in the text in cell O1.

18. ROUND formula:

Example: =ROUND(P1, 2)

This formula rounds the value in cell P1 to 2 decimal places.

19. COUNTIF formula:

 Example: =COUNTIF(Q1:Q10, ">50")

 This formula counts the number of cells in the range Q1 to Q10 that are greater than 50.

20. SUMIF formula:

 Example: =SUMIF(R1:R10, "Apples", S1:S10)

 This formula sums the values in the range S1 to S10 where the corresponding cell in the range R1 to R10 is "Apples".

21. AVERAGEIF formula:

 Example: =AVERAGEIF(T1:T10, "Red", U

1:U10)

 This formula calculates the average of the values in the range U1 to U10 where the corresponding cell in the range T1 to T10 is "Red".

22. IFERROR formula:

 Example: =IFERROR(V1/W1, "Error")

 This formula divides the value in cell V1 by the value in cell W1 and returns "Error" if an error occurs.

23. INDEX formula:

 Example: =INDEX(X1:Y10, 3, 2)

 This formula returns the value in the 3rd row and 2nd column of the range X1 to Y10.

24. MATCH formula:

 Example: =MATCH(Z1, AA1:AA10, 0)

 This formula searches for the value in cell Z1 in the range AA1 to AA10 and returns its position.

25. INDIRECT formula:

 Example: =INDIRECT("A"&AB1)

 This formula creates a reference to a cell based on the value in cell AB1.

26. COUNTIFS formula:

 Example: =COUNTIFS(AC1:AC10, ">50", AD1:AD10, "<100")

 This formula counts the number of cells that meet multiple criteria in the ranges AC1 to AC10 and AD1 to AD10.

27. SUMIFS formula:

 Example: =SUMIFS(AE1:AE10, AF1:AF10, "Apples", AG1:AG10, ">50")

 This formula sums the values in the range AE1 to AE10 where the corresponding cells in the ranges AF1 to AF10 and AG1 to AG10 meet specific criteria.

28. AVERAGEIFS formula:

 Example: =AVERAGEIFS(AH1:AH10, AI1:AI10, "Red", AJ1:AJ10, "<>0")

 This formula calculates the average of the values in the range AH1 to AH10 where the corresponding cells in the ranges AI1 to AI10 and AJ1 to AJ10 meet specific criteria.

29. CONCATENATE formula (with cell references):

 Example: =CONCATENATE(AK1, " ", AK2)

 This formula combines the text in cell AK1, a space, and the text in cell AK2.

30. TEXT formula:

 Example: =TEXT(AL1, "dd-mmm-yyyy")

 This formula converts the date in cell AL1 to a specific text format.

31. NETWORKDAYS formula:

 Example: =NETWORKDAYS(AM1, AM10)

 This formula calculates the number of working days between the dates in cells AM1 and AM10, excluding weekends.

32. LEFT formula (extracting variable number of characters):

 Example: =LEFT(AN1, SEARCH(" ", AN1)-1)

 This formula extracts the characters from the beginning of the text in cell AN1 until the first space.

33. RIGHT formula (extracting variable number of characters):

Example: =RIGHT(AO1, LEN(AO1)-SEARCH(" ", AO1))

This formula extracts the characters from the first space to the end of the text in cell AO1.

34. MID formula (extracting variable number of characters):

Example: =MID(AP1, SEARCH(" ", AP1)+1, LEN(AP1)-SEARCH(" ", AP1))

This formula extracts the characters after the first space until the end of the text in cell AP1.

35. RAND formula:

Example: =RAND()

This formula generates a random decimal number between 0 and 1.

36. RANDBETWEEN formula:

Example: =RANDBETWEEN(1, 100)

This formula generates a random whole number between 1 and 100.

37. SUBTOTAL formula:

Example: =SUBTOTAL(1, AQ1:AQ10)

This formula calculates the sum of the visible cells in the range AQ1 to AQ10, ignoring any hidden rows.

38. TRANSPOSE formula:

Example: =TRANSPOSE(AR1:AT1)

This formula transposes the values in the range AR1 to AT1, changing them from a row to a column or vice versa.

39. TODAY formula (with custom formatting):

Example: =TEXT(TODAY(), "dd-mmm-yyyy")

This formula returns the current date in a specific text format.

40. NOW formula:

Example: =NOW()

This formula returns the current date and time.

41. DATE formula:

Example: =DATE(2023, 12, 31)

This formula creates a date based on the specified year (2023), month (12), and day (31).

42. TIME formula:

Example: =TIME(9, 30, 0)

This formula creates a time based on the specified hour (9), minute (30), and second (0).

43. WEEKDAY formula:

Example: =WEEKDAY(AS1)

This formula returns the day of the week corresponding to the date in cell AS1.

44. EOMONTH formula:

Example: =EOMONTH(AT1, 3)

This formula returns the last day of the month, 3 months after the date in cell AT1.

45. DATEDIF formula:

Example: =DATEDIF(AU1, AU10, "y")

This formula calculates the number of complete years between the dates in cells AU1 and AU10.

46. PMT formula:

Example: =PMT(0.05/12, 12*5, -20000)

This formula calculates the monthly payment for a loan with an annual interest rate of 5%, 12 monthly payments per year, and a principal amount of $20,000.

47. FV formula:

Example: =FV(0.1, 10, -100, -500)

This formula calculates the future value of an investment with an annual interest rate of 10%, 10 periods, a regular payment of $100, and an initial principal of $500.

48. PV formula:

 Example: =PV(0.08, 5, -100, 0, 1)

 This formula calculates the present value of an investment with an annual discount rate of 8%, 5 periods, a regular payment of $100, a future value of $0, and payments made at the end of each period.

49. NPV formula:

 Example: =NPV(0.1, A1:A5) + A1

 This formula calculates the net present value of cash flows in cells A1 to A5, with a discount rate of 10%, and adds the initial investment in cell A1.

50. IRR formula:

 Example: =IRR(A1:A5)

 This formula calculates the internal rate of return for a series of cash flows in cells A1 to A5.

51. CUMIPMT formula:

 Example: =CUMIPMT(0.05/12, 12*5, -20000, 1, 12*3)

 This formula calculates the cumulative interest paid on a loan with an annual interest rate of 5%, 12 monthly payments per year, a principal amount of $20,000, and payments made from the first to the 36th month.

52. C

UMPRINC formula:

 Example: =CUMPRINC(0.05/12, 12*5, -20000, 1, 12*3)

 This formula calculates the cumulative principal paid on a loan with an annual interest rate of 5%, 12 monthly payments per year, a principal amount of $20,000, and payments made from the first to the 36th month.

53. PMT formula (for annuity due):

 Example: =PMT(0.05/12, 12*5, -20000, 0, 1)

This formula calculates the monthly payment for an annuity due, where payments are made at the beginning of each period.

54. VDB formula:

Example: =VDB(1000, 100, 5, 1, 3)

This formula calculates the depreciation of an asset for the first 3 periods using the declining balance method.

55. HLOOKUP formula:

Example: =HLOOKUP("Apples", AV1:AX10, 2, FALSE)

This formula looks for the value "Apples" in the first row of the range AV1 to AX10 and returns the corresponding value from the second row.

56. INDEX-MATCH formula:

Example: =INDEX(AV1:AX10, MATCH("Oranges", AW1:AW10, 0), 2)

This formula combines the INDEX and MATCH functions to find the row that contains "Oranges" in column AW and returns the value from the second column in the range AV1 to AX10.

57. OFFSET formula:

Example: =OFFSET(AY1, 3, 2, 2, 1)

This formula returns a range of cells starting from cell AY1, moving 3 rows down and 2 columns to the right, with a height of 2 rows and a width of 1 column.

58. SUMPRODUCT formula:

Example: =SUMPRODUCT(AZ1:AZ5, BA1:BA5)

This formula multiplies the values in the range AZ1 to AZ5 by the values in the range BA1 to BA5 and returns the sum of the products.

59. RANK formula:

Example: =RANK(BB1, BB1:BB10)

This formula calculates the rank of the value in cell BB1 compared to the values in the range BB1 to BB10.

60. STDEV formula:

Example: =STDEV(BC1:BC10)

This formula calculates the standard deviation of the values in the range BC1 to BC10, representing a sample.

61. STDEVP formula:

Example: =STDEVP(BD1:BD10)

This formula calculates the standard deviation of the values in the range BD1 to BD10, representing the entire population.

62. MEDIAN formula:

Example: =MEDIAN(BE1:BE10)

This formula calculates the median (middle value) of the values in the range BE1 to BE10.

63. MODE formula:

Example: =MODE(BF1:BF10)

This formula calculates the mode (most frequently occurring value) of the values in the range BF1 to BF10.

64. QUARTILE formula:

Example: =QUARTILE(BG1:BG10, 3)

This formula calculates the third quartile (75th percentile) of the values in the range BG1 to BG10.

65. PERCENTILE formula:

Example: =PERCENTILE(BH1:BH10, 90%)

This formula calculates the 90th percentile of the values in the

range BH1 to BH10.

66. VARIANCE formula:

Example: =VAR(BI1:BI10)

This formula calculates the variance of the values in the range BI1 to BI10, representing a sample.

67. VARP formula:

 Example: =VARP(BJ1:BJ10)

 This formula calculates the variance of the values in the range BJ1 to BJ10, representing the entire population.

68. UPPER formula (applied to a range):

 Example: =UPPER(BK1:BK10)

 This formula converts the text in cells BK1 to BK10 to uppercase.

69. LOWER formula (applied to a range):

 Example: =LOWER(BL1:BL10)

 This formula converts the text in cells BL1 to BL10 to lowercase.

70. PROPER formula (applied to a range):

 Example: =PROPER(BM1:BM10)

 This formula capitalizes the first letter of each word in the text in cells BM1 to BM10.

71. SUBSTITUTE formula:

 Example: =SUBSTITUTE(BN1, "Apple", "Orange")

 This formula replaces the text "Apple" with "Orange" in the text contained in cell BN1.

72. FIND formula:

 Example: =FIND("e", BO1)

 This formula finds the position of the letter "e" in the text contained in cell BO1.

73. SEARCH formula:

 Example: =SEARCH("e", BP1)

 This formula searches for the letter "e" in the text contained in cell BP1 and returns its position.

74. REPLACE formula:

Example: =REPLACE(BQ1, 3, 2, "xyz")

This formula replaces 2 characters starting from the 3rd position of the text in cell BQ1 with the text "xyz".

75. MID formula (extracting variable number of characters within a range):

Example: =MID(BR1, SEARCH(" ", BR1)+1, LEN(BR1)-SEARCH(" ", BR1))

This formula extracts the characters after the first space until the end of the text in cell BR1, applied to a range of cells.

76. CONCATENATE formula (with cell ranges):

Example: =CONCATENATE(BS1:BS10)

This formula combines the text in cells BS1 to BS10 into a single string.

77. TEXTJOIN formula:

Example: =TEXTJOIN(", ", TRUE, BT1:BT10)

This formula combines the text in cells BT1 to BT10, separated by a comma and space.

78. LEFT formula (extracting variable number of characters within a range):

Example: =LEFT(BU1, SEARCH(" ", BU1)-1)

This formula extracts the characters from the beginning of the text in cell BU1 until the first space, applied to a range of cells.

79. RIGHT formula (extracting variable number of characters within a range):

Example: =RIGHT(BV1, LEN(BV1)-SEARCH(" ", BV1))

This formula extracts the characters from the first space to the end of the text in cell BV1, applied to a range of cells.

80. SUMPRODUCT formula (multiple ranges):

Example: =SUMPRODUCT(BW1:BW5, BX1:BX5, BY1:BY5)

This formula multiplies the values in the ranges BW1 to BW5, BX1 to BX5, and BY1 to BY5, and returns the sum of the products.

81. INDEX-MATCH formula (multiple criteria):

Example: =INDEX(BZ1:BZ10, MATCH(1, (

CA1:CA10="Red")*(CB1:CB10="Large"), 0))

This formula combines the INDEX and MATCH functions to find the first occurrence where the corresponding cells in ranges CA1 to CA10 and CB1 to CB10 meet specific criteria, and returns the value from the range BZ1 to BZ10.

82. COUNTIF formula (with wildcard):

Example: =COUNTIF(CC1:CC10, "App*")

This formula counts the number of cells in the range CC1 to CC10 that start with the text "App".

83. SUMIF formula (with wildcard):

Example: =SUMIF(CD1:CD10, "Fruit*", CE1:CE10)

This formula sums the values in the range CE1 to CE10 where the corresponding cells in the range CD1 to CD10 start with the text "Fruit".

84. AVERAGEIF formula (with wildcard):

Example: =AVERAGEIF(CF1:CF10, "Red*", CG1:CG10)

This formula calculates the average of the values in the range CG1 to CG10 where the corresponding cells in the range CF1 to CF10 start with the text "Red".

85. MAX formula (with criteria):

Example: =MAX(IF(CH1:CH10="Apples", CI1:CI10))

This formula finds the maximum value in the range CI1 to CI10, considering only the values where the corresponding cells in the range CH1 to CH10 are "Apples". It is an array formula, so remember to press Ctrl+Shift+Enter when entering it.

86. MIN formula (with criteria):

Example: =MIN(IF(CJ1:CJ10="Oranges", CK1:CK10))

This formula finds the minimum value in the range CK1 to CK10, considering only the values where the corresponding cells in the range CJ1 to CJ10 are "Oranges". It is an array formula, so remember to press Ctrl+Shift+Enter when entering it.

87. SUMIFS formula (with wildcard):

Example: =SUMIFS(CL1:CL10, CM1:CM10, "Fruit*", CN1:CN10, ">50")

This formula sums the values in the range CL1 to CL10 where the corresponding cells in the range CM1 to CM10 start with the text "Fruit" and the corresponding cells in the range CN1 to CN10 are greater than 50.

88. AVERAGEIFS formula (with wildcard):

Example: =AVERAGEIFS(CO1:CO10, CP1:CP10, "Red*", CQ1:CQ10, ">0")

This formula calculates the average of the values in the range CO1 to CO10 where the corresponding cells in the range CP1 to CP10 start with the text "Red" and the corresponding cells in the range CQ1 to CQ10 are greater than 0.

89. COUNTBLANK formula:

Example: =COUNTBLANK(CR1:CR10)

This formula counts the number of blank cells in the range CR1 to CR10.

90. CONCAT formula (with cell ranges):

Example: =CONCAT(CS1:CT10)

This formula combines the text in cells CS1 to CT10 into a single string.

91. SUBTOTAL formula (dynamic):

Example: =SUBTOTAL(9, CU1:CU10)

This formula calculates the sum of the visible cells in the range CU1 to CU10, excluding any hidden rows, and updates automatically when the filtering of data changes.

92. XNPV formula:

Example: =XNPV(0

.1, CV1:CV5, CW1:CW5)

This formula calculates the net present value of cash flows in the range CW1 to CW5 with specific dates in the range CV1 to CV5 and a discount rate of 10%.

93. XIRR formula:

Example: =XIRR(CV1:CV5, CW1:CW5)

This formula calculates the internal rate of return for a series of cash flows in the range CW1 to CW5 with specific dates in the range CV1 to CV5.

94. POWER formula:

Example: =POWER(CX1, CY1)

This formula raises the number in cell CX1 to the power of the number in cell CY1.

95. SQRT formula:

Example: =SQRT(CZ1)

This formula calculates the square root of the number in cell CZ1.

96. LOG formula:

Example: =LOG(DA1)

This formula calculates the natural logarithm of the number in cell DA1.

97. ROUND formula:

Example: =ROUND(DB1, 2)

This formula rounds the number in cell DB1 to 2 decimal places.

98. INT formula:

Example: =INT(DC1)

This formula rounds down the number in cell DC1 to the nearest integer.

99. MOD formula:

Example: =MOD(DD1, 7)

This formula returns the remainder when the number in cell DD1 is divided by 7.