

Excel 200 Formulas

1. Basic Math

1. **Addition:** =A1 + B1
 2. **Subtraction:** =A1 - B1
 3. **Multiplication:** =A1 * B1
 4. **Division:** =A1 / B1
 5. **Exponents:** =A1^B1
 6. **Average:** =AVERAGE (A1:A10)
 7. **Sum:** =SUM (A1:A10)
 8. **Count:** =COUNT (A1:A10)
 9. **Round:** =ROUND (A1, 2)
 10. **Power:** =POWER (A1, 3)
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2. Conditional Logic

11. **IF Statement:** =IF (A1>10, "Yes", "No")
 12. **Nested IF:** =IF (A1>10, "High", IF (A1>5, "Medium", "Low"))
 13. **AND:** =AND (A1>10, B1<5)
 14. **OR:** =OR (A1>10, B1<5)
 15. **IF with AND:** =IF (AND (A1>10, B1<5), "Yes", "No")
 16. **IF with OR:** =IF (OR (A1>10, B1<5), "Yes", "No")
 17. **IFERROR:** =IFERROR (A1/B1, "Error")
 18. **CHOOSE:** =CHOOSE (A1, "Red", "Green", "Blue")
 19. **SWITCH:** =SWITCH (A1, 1, "Red", 2, "Green", 3, "Blue", "Other")
 20. **IFS:** =IFS (A1>10, "High", A1>5, "Medium", TRUE, "Low")
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3. Lookup and Reference

21. **VLOOKUP:** =VLOOKUP (101, A1:C10, 2, FALSE)
 22. **HLOOKUP:** =HLOOKUP (101, A1:C10, 2, FALSE)
 23. **INDEX:** =INDEX (A1:C10, 2, 3)
 24. **MATCH:** =MATCH (50, A1:A10, 0)
 25. **INDEX-MATCH:** =INDEX (B1:B10, MATCH (50, A1:A10, 0))
 26. **XLOOKUP:** =XLOOKUP (50, A1:A10, B1:B10)
 27. **OFFSET:** =OFFSET (A1, 2, 3)
 28. **INDIRECT:** =INDIRECT ("A" & B1)
 29. **LOOKUP:** =LOOKUP (50, A1:A10, B1:B10)
 30. **COLUMN:** =COLUMN (A1)
 31. **ROW:** =ROW (A1)
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4. Text Manipulation

- 32. **Concatenate:** =CONCATENATE (A1, " ", B1)
 - 33. **TEXTJOIN:** =TEXTJOIN(" ", TRUE, A1:A10)
 - 34. **LEFT:** =LEFT (A1, 5)
 - 35. **RIGHT:** =RIGHT (A1, 5)
 - 36. **MID:** =MID (A1, 3, 5)
 - 37. **LEN:** =LEN (A1)
 - 38. **TRIM:** =TRIM (A1)
 - 39. **UPPER:** =UPPER (A1)
 - 40. **LOWER:** =LOWER (A1)
 - 41. **PROPER:** =PROPER (A1)
 - 42. **TEXT:** =TEXT (A1, "dd-mmm-yyyy")
 - 43. **SEARCH:** =SEARCH ("apple", A1)
 - 44. **FIND:** =FIND ("apple", A1)
 - 45. **REPLACE:** =REPLACE (A1, 1, 3, "Hi")
 - 46. **SUBSTITUTE:** =SUBSTITUTE (A1, "apple", "orange")
 - 47. **REPT:** =REPT ("A", 5)
 - 48. **EXACT:** =EXACT (A1, B1)
 - 49. **CODE:** =CODE (A1)
 - 50. **CHAR:** =CHAR (65)
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5. Date and Time

- 51. **TODAY:** =TODAY ()
 - 52. **NOW:** =NOW ()
 - 53. **YEAR:** =YEAR (A1)
 - 54. **MONTH:** =MONTH (A1)
 - 55. **DAY:** =DAY (A1)
 - 56. **HOURL:** =HOUR (A1)
 - 57. **MINUTE:** =MINUTE (A1)
 - 58. **SECOND:** =SECOND (A1)
 - 59. **WEEKDAY:** =WEEKDAY (A1)
 - 60. **WEEKNUM:** =WEEKNUM (A1)
 - 61. **DATE:** =DATE (2023, 1, 1)
 - 62. **TIME:** =TIME (12, 30, 45)
 - 63. **EDATE:** =EDATE (A1, 3)
 - 64. **EOMONTH:** =EOMONTH (A1, 1)
 - 65. **DATEDIF:** =DATEDIF (A1, B1, "d")
 - 66. **NETWORKDAYS:** =NETWORKDAYS (A1, B1)
 - 67. **WORKDAY:** =WORKDAY (A1, 5)
 - 68. **ISOWEEKNUM:** =ISOWEEKNUM (A1)
 - 69. **YEARFRAC:** =YEARFRAC (A1, B1)
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6. Statistical Analysis

- 70. **MAX:** =MAX (A1:A10)
- 71. **MIN:** =MIN (A1:A10)
- 72. **MEDIAN:** =MEDIAN (A1:A10)
- 73. **MODE:** =MODE (A1:A10)
- 74. **STDEV:** =STDEV (A1:A10)
- 75. **VAR:** =VAR (A1:A10)
- 76. **LARGE:** =LARGE (A1:A10, 2)
- 77. **SMALL:** =SMALL (A1:A10, 2)
- 78. **PERCENTILE:** =PERCENTILE (A1:A10, 0.9)
- 79. **QUARTILE:** =QUARTILE (A1:A10, 3)
- 80. **CORREL:** =CORREL (A1:A10, B1:B10)

7. Financial Functions

- 81. **PMT (Loan Payment):** =PMT (5%/12, 60, -10000)
 - 82. **FV (Future Value):** =FV (5%/12, 60, -200)
 - 83. **PV (Present Value):** =PV (5%/12, 60, -200)
 - 84. **NPV (Net Present Value):** =NPV (10%, A1:A10)
 - 85. **IRR (Internal Rate of Return):** =IRR (A1:A10)
 - 86. **RATE:** =RATE (60, -200, 10000)
 - 87. **PPMT (Principal Payment):** =PPMT (5%/12, 1, 60, -10000)
 - 88. **IPMT (Interest Payment):** =IPMT (5%/12, 1, 60, -10000)
 - 89. **SLN (Straight-Line Depreciation):** =SLN (10000, 1000, 5)
 - 90. **DB (Declining Balance Depreciation):** =DB (10000, 1000, 5, 1)
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8. Logical Functions

- 91. **ISNUMBER:** =ISNUMBER (A1)
 - 92. **ISTEXT:** =ISTEXT (A1)
 - 93. **ISBLANK:** =ISBLANK (A1)
 - 94. **ISERROR:** =ISERROR (A1)
 - 95. **ISEVEN:** =ISEVEN (A1)
 - 96. **ISODD:** =ISODD (A1)
 - 97. **NOT:** =NOT (A1>10)
 - 98. **TRUE:** =TRUE ()
 - 99. **FALSE:** =FALSE ()
 - 100. **FORMULATEXT:** =FORMULATEXT (A1)
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9. Array and Dynamic Formulas

- 101. **UNIQUE:** =UNIQUE (A1:A10)
- 102. **FILTER:** =FILTER (A1:A10, B1:B10="Yes")

- 103. **SORT:** =SORT (A1:A10)
 - 104. **SORTBY:** =SORTBY (A1:A10, B1:B10, 1)
 - 105. **SEQUENCE:** =SEQUENCE (5, 2, 1, 1)
 - 106. **RANDARRAY:** =RANDARRAY (5, 2, 1, 100, TRUE)
 - 107. **TRANSPOSE:** =TRANSPOSE (A1:A10)
 - 108. **MMULT:** =MMULT (A1:B2, C1:D2)
 - 109. **TEXTSPLIT:** =TEXTSPLIT (A1, ",", "
 - 110. **TEXTAFTER:** =TEXTAFTER (A1, ",", "
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10. Statistical Analysis (Advanced)

- 111. **PERCENTRANK:** =PERCENTRANK (A1:A10, A1)
 - 112. **GEOMEAN:** =GEOMEAN (A1:A10)
 - 113. **HARMEAN:** =HARMEAN (A1:A10)
 - 114. **SKEW:** =SKEW (A1:A10)
 - 115. **KURT:** =KURT (A1:A10)
 - 116. **COVARIANCE.P:** =COVARIANCE.P (A1:A10, B1:B10)
 - 117. **COVARIANCE.S:** =COVARIANCE.S (A1:A10, B1:B10)
 - 118. **FORECAST:** =FORECAST (12, A1:A10, B1:B10)
 - 119. **LINEST:** =LINEST (A1:A10, B1:B10)
 - 120. **TREND:** =TREND (A1:A10, B1:B10)
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11. Advanced Lookup

- 121. **XMATCH:** =XMATCH (50, A1:A10)
 - 122. **HYPERLINK:** =HYPERLINK ("https://www.example.com", "Click Here")
 - 123. **ADDRESS:** =ADDRESS (1, 1)
 - 124. **AREAS:** =AREAS (A1:C10)
 - 125. **OFFSET-MATCH:** =OFFSET (A1, MATCH (50, A1:A10, 0), 0)
 - 126. **FORMULATEXT with VLOOKUP:** =FORMULATEXT (VLOOKUP (101, A1:C10, 2, FALSE))
 - 127. **COLUMN Reference in Lookup:** =VLOOKUP (101, A1:C10, COLUMN (C1), FALSE)
 - 128. **ROWS Count:** =ROWS (A1:A10)
 - 129. **INDEX with Array:** =INDEX ({1,2,3;4,5,6;7,8,9}, 2, 3)
 - 130. **MULTIPLE MATCH:** =MATCH (50, A1:A10, 1)
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12. Error Handling

- 131. **ISERR:** =ISERR (A1/B1)
- 132. **IFNA:** =IFNA (VLOOKUP (50, A1:B10, 2, FALSE), "Not Found")
- 133. **ERROR.TYPE:** =ERROR.TYPE (A1)

- 134. **NA:** =NA()
 - 135. **ISNA:** =ISNA(VLOOKUP(50, A1:B10, 2, FALSE))
 - 136. **IF with ERROR.TYPE:** =IF(ERROR.TYPE(A1)=7, "NA Error", "Other Error")
 - 137. **CLEAN:** =CLEAN(A1)
 - 138. **TRAP Divide Error:** =IF(B1=0, "Divide Error", A1/B1)
 - 139. **IFERROR with CONCAT:** =IFERROR(CONCAT(A1:A10), "Error")
 - 140. **CATCH Error in Array:** =IFERROR(ARRAYFORMULA(A1:A10/B1:B10), "Error")
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13. Visualization Helpers

- 141. **SPARKLINE (Line):** =SPARKLINE(A1:A10)
 - 142. **SPARKLINE (Bar):** =SPARKLINE(A1:A10, {"charttype", "column"})
 - 143. **SPARKLINE (Win/Loss):** =SPARKLINE(A1:A10, {"charttype", "winloss"})
 - 144. **SPARKLINE (Custom):** =SPARKLINE(A1:A10, {"highcolor", "red"})
 - 145. **MINI-CHART:** =TEXT(A1, "0.00") & REPT("|", A1*10)
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14. Probability and Forecasting

- 146. **BINOM.DIST:** =BINOM.DIST(6, 10, 0.5, FALSE)
- 147. **NORM.DIST:** =NORM.DIST(1, 0, 1, TRUE)
- 148. **NORM.S.DIST:** =NORM.S.DIST(1, TRUE)
- 149. **EXPON.DIST:** =EXPON.DIST(0.5, 1, TRUE)
- 150. **WEIBULL.DIST:** =WEIBULL.DIST(1, 1.5, 2, TRUE)
- 151. **FORECAST.ETS:** =FORECAST.ETS(12, A1:A10, B1:B10)
- 152. **FORECAST.ETS.CONFINT:** =FORECAST.ETS.CONFINT(A1:A10, B1:B10)
- 153. **FORECAST.LINEAR:** =FORECAST.LINEAR(12, A1:A10, B1:B10)
- 154. **HYPGEOM.DIST:** =HYPGEOM.DIST(3, 20, 7, 12, FALSE)
- 155. **POISSON.DIST:** =POISSON.DIST(2, 5, TRUE)

15. Engineering Functions

- 156. **CONVERT:** =CONVERT(10, "m", "cm")
- 157. **DELTA:** =DELTA(A1, B1)
- 158. **GESTEP:** =GESTEP(A1, 5)
- 159. **COMPLEX:** =COMPLEX(3, 4)
- 160. **IMAGINARY:** =IMAGINARY("3+4i")
- 161. **REAL:** =IMREAL("3+4i")
- 162. **IMSUM:** =IMSUM("3+4i", "5+6i")
- 163. **IMSQRT:** =IMSQRT("3+4i")
- 164. **BIN2DEC:** =BIN2DEC(1101)

165. **DEC2BIN:** =DEC2BIN (13)

16. Array Manipulation

166. **EXPAND:** =EXPAND (A1:A3, 5, 3, 0)
167. **DROP:** =DROP (A1:A10, 3)
168. **TAKE:** =TAKE (A1:A10, 3)
169. **WRAPROWS:** =WRAPROWS (A1:A6, 2)
170. **WRAPCOLS:** =WRAPCOLS (A1:A6, 3)
171. **SCAN:** =SCAN (0, A1:A10, LAMBDA (acc, x, acc+x))
172. **REDUCE:** =REDUCE (0, A1:A10, LAMBDA (acc, x, acc+x))
173. **BYROW:** =BYROW (A1:A10, LAMBDA (x, SUM (x)))
174. **BYCOL:** =BYCOL (A1:A10, LAMBDA (x, AVERAGE (x)))
175. **TOCOL:** =TOCOL (A1:B5)

17. Advanced Date and Time

176. **DATEDIF with Months:** =DATEDIF (A1, B1, "m")
177. **DATEDIF with Years:** =DATEDIF (A1, B1, "y")
178. **WEEKDAY with Type:** =WEEKDAY (A1, 2)
179. **ISOWEEKNUM for ISO Dates:** =ISOWEEKNUM (A1)
180. **EPOCH Time Conversion:** =A1/86400 + DATE (1970,1,1)

18. Text Functions (Advanced)

181. **TEXTBEFORE:** =TEXTBEFORE (A1, ",")
182. **TEXTAFTER:** =TEXTAFTER (A1, ",")
183. **TEXTSPLIT (Multi-Delimiter):** =TEXTSPLIT (A1, {"",",",";"})
184. **REPLACE with Dynamic Length:** =REPLACE (A1, 3, LEN (A1)-3, "")
185. **TRIM and CLEAN Combo:** =TRIM (CLEAN (A1))

19. Statistical Tests

186. **Z.TEST:** =Z.TEST (A1:A10, 0)
187. **T.TEST:** =T.TEST (A1:A10, B1:B10, 2, 1)
188. **CHISQ.TEST:** =CHISQ.TEST (A1:A10, B1:B10)
189. **F.TEST:** =F.TEST (A1:A10, B1:B10)
190. **CORREL:** =CORREL (A1:A10, B1:B10)

20. Web and External Data

- 191. **WEBSERVICE:** =WEBSERVICE("https://api.example.com/data")
 - 192. **FILTERXML:** =FILTERXML(A1, "//data")
 - 193. **ENCODEURL:** =ENCODEURL(A1)
 - 194. **HYPERLINK with Dynamic Text:** =HYPERLINK(A1, "Visit " & B1)
 - 195. **IMPORTHTML (Google Sheets Equivalent):** (Custom Function or Add-In)
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21. Randomization and Simulation

- 196. **RAND:** =RAND()
- 197. **RANDBETWEEN:** =RANDBETWEEN(1, 100)
- 198. **RANDARRAY with Bounds:** =RANDARRAY(10, 1, 1, 100, TRUE)
- 199. **Random Sample:** =INDEX(A1:A100, RANDBETWEEN(1, ROWS(A1:A100)))
- 200. **Simulated Probabilities:** =NORM.INV(RAND(), 50, 10)