ACROSTIC EQUATIONS

ANIL
Perth, Australia

David Morice in WW 96-179 introduced acrostic equations with the only possible perfect example, TEN = Twenty + Eighty - Ninety. It’s purity is perhaps best left unpolluted by more forced examples. But nooo, I couldn’t refrain from offering variously flawed solutions for the other number names. ONE is nearest perfect, flawed only by using itself in its equation. No other numbers are spelled exclusively with the initial letters of English number names. But combining initials with Roman numerals including the Medieval Roman numerals A = 500, B = 300, G = 400, H = 200, O = 11, P = 400, Q = 500, R = 80, Y = 150 and Z = 2000 (see WW 95-183) allowed solutions for all other continuously named integers, including 0 and 1 without self-reference, except for those containing U or W (2, 4, etc) since they were not Roman numerals. To solve them, two dirty tricks were invoked: counting U as V = 5 (as in Latin—and in English until two centuries ago) and W as ‘double U’ (double V) = 10. Will purists now begrudge me the fun I had producing a complete acrostic numerology? Current Romans—I V X L C D M and the somewhat current R—were sufficient for 24 (48%) of the list. Appropriate combinations of this list of 50 number names will yield acrostic equations for any named integer thru vigintillions (10^{63}). I’ve ignored three other named numbers—centillion 10^{103}, googol 10^{100} and googolplex 10^{ googol}—as the great chasm between them and vigintillion renders them irrelevant to the continuous numbering problem I’ve addressed and otherwise solved. (I couldn’t solve googol anyhow.) If the intervening numbers have names they’re not listed in the number table in Web-3. If readers know of number names over vigintillion, please inform us. Actually it shouldn’t be too hard to coin them based on the Latin pattern so far. Never mind, it’s more than me job’s worth.

Rather than translate the literal equations into numbers I have left it to the reader to ‘solve’ or confirm these results, making the article something of a puzzle. Please let the editor know if you find any mistakes or serious ambiguities.

ZERO = Zero - Eight - R - One; or, without self-reference, ZERO = Z(Eight - R) - One
ONE = One(Nine - Eight); or, without self-reference, ONE = O - Ninety + Eighty
TWO = (Ten/W) + One
THREE = (Thousand/Hundred) + (R/Eighty) - Eight
FOUR = Five - One
FIVE = Fourteen - IV - Eight; or, FIVE = (Forty)(IV) + Eight
SIX = Seventeen - I - X
SEVEN = (Six - Eight - V)(Eight - Nine)
EIGHT = Eleven - IGH - Two
NINE = Ninety - INineteen - Eighty
TEN = Twenty + Eighty - Ninety (Merice)
ELEVEN = -Eighty + L + (Eight-V) - Eight + Nine
TWELVE = Three + W - (Eleven - [L/V])Eighteen
THIRTEEN = [(Two - Hundred - I - R)/Ten] + (Eight/Eight)Nine
FOURTEEN = (Four/One + Ten([Eleven/Eleven])Nine)
FIFTEEN = (Four)(Five)(Ten) - Eight - Eight - Nine
SIXTEEN = (Seventeen - IX)(TenEighty/Eighty - Nine)
SEVENTEEN = Six + Eleven + V + Eight + Nine - Twelve - (Eighty/Eighty) - Nine
EIGHTEEN = (Eight)(I\textsuperscript{GH}) + Two + Eight + (Eighty + Nine)
NINETEEN = (Nine + I + Nine)(Eleven - Ten)((Eight/Eight)\textsuperscript{Nine})
TWENTY = Two\cdot W\cdot ((Eight - Nine)\textsuperscript{Ten+Y})
THIRTY = [Two Hundred + (IR \times Thousand)] \times Y
FORTY = (Fourteen + O)\cdot R\cdot Three + Y
FIFTY = ([Four + I]/(Five)/Three) \times Y
SIXTY = -(Seventeen + I)(X/Two) + Y
SEVENTY = (Seven + Eleven + V + Eight - Nine)(Ten) - Y
EIGHTY = (Eighteen\cdot IO) + H + Twelve - Y
NINETY = -Nineteen - I - Nineteen - Eleven - Ten + Y
HUNDRED = H\cdot U + Nine - D + R + Eleven - D
THOUSAND = (Ten\cdot Hundred)(One\textsuperscript{USA} + Nine + D)
MILLION (10\textsuperscript{6}) = (M\cdot I)(L + L)\cdot I\cdot (One + Nine)
BILLION (10\textsuperscript{9}) = (√[B/I + (L/L) + I\textsuperscript{One}])\textsuperscript{Ninet}
TRILLION (10\textsuperscript{12}) = (√[Twenty + R\cdot I])\textsuperscript{[L/L] + I + One + Nine}
QUADRILLION (10\textsuperscript{15}) = (Q\textsuperscript{I})(A + D)(R\textsuperscript{I}) = (L\cdot X)(I\textsuperscript{One+Nine})
QUINTILLION (10\textsuperscript{18}) = (Q + U)\textsuperscript{Nineteen} x [{(Thousand\textsuperscript{I}) + {(L + L)\textsuperscript{One} + Nine}}]
SEXTILLION (10\textsuperscript{21}) = Seventy - Eighty + X + Thousand\textsuperscript{I - L/L}\textsuperscript{I\textsuperscript{One+Nine} + Nine}
SEPTILLION (10\textsuperscript{24}) = (Seventy - Eighty + \sqrt{P})(Twelve x [I + {L/L}]) \times I\textsuperscript{O + Nine}
OCTILLION (10\textsuperscript{27}) = (One\cdot C\cdot Ten\cdot I)(L + L - [I\textsuperscript{One} - Ninety])
NONILLION (10\textsuperscript{30}) = (Nine + One)\textsuperscript{Ex}([Nine + I]\cdot [{L/L} + I + One\textsuperscript{Nineteen}])
\((^* \text{ E is the old computer style "Exponent" I needed to allow expression of an exponent within an exponent.})
DECILLION (10\textsuperscript{33}) = [D\textsuperscript{3\sqrt{Eighty/C}}]\textsuperscript{[I + [L/L] + I + O + Nineteen]}
UNDECILLION (10\textsuperscript{36}) = U\cdot Naught + \sqrt{(D\cdot Eighty - C)}\textsuperscript{[L - [L/L] + I + O + Nine]}
DUODECILLION (10\textsuperscript{39}) = (Q\textsuperscript{IV} - [D\cdot Eighty\textsuperscript{I\textsuperscript{C}}] + I + [L/L\cdot I + One - Nineteen])
TREDECILLION (10\textsuperscript{42}) = ([\sqrt{Thousand}] \times [R/Eighty\textsuperscript{D\cdot Eleven}])\textsuperscript{[(C\cdot I\textsuperscript{L}) - L\cdot I + O - Nineteen]}
QUATUORDECILLION (10\textsuperscript{45}) = (Q/U)(A\cdot Twenty/Thousand)\textsuperscript{E(-U - [One\textsuperscript{R\cdot D\cdot Eighty\cdot C} - I\textsuperscript{L} + I\textsuperscript{O + Nine}) - I\textsuperscript{One - Nineteen})]
QUINDECILLION (10\textsuperscript{48}) = (Q + \sqrt{U\textsuperscript{I\cdot I\textsuperscript{Nineteen}}})\textsuperscript{-(D\textsuperscript{Eighty\cdot C - I\cdot L + L\cdot I + One - Nineteen})
\text{or QUINDECILLION = Quattuordecillion x (U\cdot I\textsuperscript{Nineteen\cdot D\cdot Eighty\cdot C + I})\textsuperscript{[L/L] + I + One\textsuperscript{Nineteen}])
SEXDECILLION (10\textsuperscript{51}) = ([[Seventeen + Eight\cdot X/D\textsuperscript{I\textsuperscript{Eighteen + C\textsuperscript{I/L}}})\textsuperscript{E(L + I\textsuperscript{One\textsuperscript{Nineteen}})}
SEPTENDECILLION (10\textsuperscript{54}) = Sexdecillion x ([Eighty + P + Twenty - Eighty + Ninety - D\textsuperscript{Eleven}] - C\textsuperscript{I\cdot L/L} + I + One\textsuperscript{Nineteen})
OCTODECILLION (10\textsuperscript{57}) = (Octillion/C)(Thousand\cdot Octillion\cdot D\cdot [\sqrt{Eighty/C}][I\cdot L/L\cdot I\cdot One\cdot Nineteen])
NOVEMDECILLION (10\textsuperscript{60}) = (Nine + One)(Vigintillion) + ([Eight\cdot M + D\cdot Eight\cdot C\cdot I\cdot L/L] + I + One\textsuperscript{Nineteen})
VIGINTILLION (10\textsuperscript{63}) = V - I\textsuperscript{G - I + (Novemdecillion\cdot Ten\cdot I\cdot [L/L]) - I - O + Nine}