```
gg = 9; (* number *)
bb = 2*gg + 1; (* base max *)
Do[
 z = Length[IntegerDigits[g + g, b]];
 s = Sum[10^(i - 1)*IntegerDigits[g + g, b][[z - i + 1]], {i, 1, z}];
 Print[g, "+", g, "=", 2g, " is ", TrueQ[s == 2g], " in base ", b, "; sum_(",
  b, ")=", s, "; num_digits_(", b, ")=", z]
 , {g, 1, gg}, {b, g + 1, bb}]
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1+1=2 is False in base 2; sum_(2)=10; num_digits_(2)=2
1+1=2 is True in base 3; sum_(3)=2; num_digits_(3)=1
1+1=2 is True in base 4; sum_(4)=2; num_digits_(4)=1
1+1=2 is True in base 5; sum_(5)=2; num_digits_(5)=1
1+1=2 is True in base 6; sum_(6)=2; num_digits_(6)=1
1+1=2 is True in base 7; sum_(7)=2; num_digits_(7)=1
1+1=2 is True in base 8; sum_(8)=2; num_digits_(8)=1
1+1=2 is True in base 9; sum_(9)=2; num_digits_(9)=1
1+1=2 is True in base 10; sum_(10)=2; num_digits_(10)=1
1+1=2 is True in base 11; sum_(11)=2; num_digits_(11)=1
1+1=2 is True in base 12; sum_(12)=2; num_digits_(12)=1
1+1=2 is True in base 13; sum_(13)=2; num_digits_(13)=1
1+1=2 is True in base 14; sum_(14)=2; num_digits_(14)=1
1+1=2 is True in base 15; sum_(15)=2; num_digits_(15)=1
1+1=2 is True in base 16; sum_(16)=2; num_digits_(16)=1
1+1=2 is True in base 17; sum_(17)=2; num_digits_(17)=1
1+1=2 is True in base 18; sum_(18)=2; num_digits_(18)=1
1+1=2 is True in base 19; sum_(19)=2; num_digits_(19)=1
2+2=4 is False in base 3; sum_(3)=11; num_digits_(3)=2
2+2=4 is False in base 4; sum_(4)=10; num_digits_(4)=2
2+2=4 is True in base 5; sum_(5)=4; num_digits_(5)=1
2+2=4 is True in base 6; sum_(6)=4; num_digits_(6)=1
2+2=4 is True in base 7; sum_(7)=4; num_digits_(7)=1
2+2=4 is True in base 8; sum_(8)=4; num_digits_(8)=1
2+2=4 is True in base 9; sum_(9)=4; num_digits_(9)=1
2+2=4 is True in base 10; sum_(10)=4; num_digits_(10)=1
2+2=4 is True in base 11; sum_(11)=4; num_digits_(11)=1
2+2=4 is True in base 12; sum_(12)=4; num_digits_(12)=1
2+2=4 is True in base 13; sum_(13)=4; num_digits_(13)=1
2+2=4 is True in base 14; sum_(14)=4; num_digits_(14)=1
2+2=4 is True in base 15; sum_(15)=4; num_digits_(15)=1
2+2=4 is True in base 16; sum_(16)=4; num_digits_(16)=1
2+2=4 is True in base 17; sum_(17)=4; num_digits_(17)=1
2+2=4 is True in base 18; sum_(18)=4; num_digits_(18)=1
2+2=4 is True in base 19; sum_(19)=4; num_digits_(19)=1
3+3=6 is False in base 4; sum_(4)=12; num_digits_(4)=2
3+3=6 is False in base 5; sum_(5)=11; num_digits_(5)=2
3+3=6 is False in base 6; sum_(6)=10; num_digits_(6)=2
3+3=6 is True in base 7; sum_(7)=6; num_digits_(7)=1
3+3=6 is True in base 8; sum_(8)=6; num_digits_(8)=1
3+3=6 is True in base 9; sum_(9)=6; num_digits_(9)=1
3+3=6 is True in base 10; sum_(10)=6; num_digits_(10)=1
3+3=6 is True in base 11; sum_(11)=6; num_digits_(11)=1
3+3=6 is True in base 12; sum_(12)=6; num_digits_(12)=1
3+3=6 is True in base 13; sum_(13)=6; num_digits_(13)=1
3+3=6 is True in base 14; sum_(14)=6; num_digits_(14)=1
3+3=6 is True in base 15; sum_(15)=6; num_digits_(15)=1
3+3=6 is True in base 16; sum_(16)=6; num_digits_(16)=1
3+3=6 is True in base 17; sum_(17)=6; num_digits_(17)=1
3+3=6 is True in base 18; sum_(18)=6; num_digits_(18)=1
3+3=6 is True in base 19; sum_(19)=6; num_digits_(19)=1
4+4=8 is False in base 5; sum_(5)=13; num_digits_(5)=2
4+4=8 is False in base 6; sum_(6)=12; num_digits_(6)=2
4+4=8 is False in base 7; sum_(7)=11; num_digits_(7)=2
4+4=8 is False in base 8; sum_(8)=10; num_digits_(8)=2
4+4=8 is True in base 9; sum_(9)=8; num_digits_(9)=1
4+4=8 is True in base 10; sum_(10)=8; num_digits_(10)=1
4+4=8 is True in base 11; sum_(11)=8; num_digits_(11)=1
4+4=8 is True in base 12; sum_(12)=8; num_digits_(12)=1
4+4=8 is True in base 13; sum_(13)=8; num_digits_(13)=1
4+4=8 is True in base 14; sum_(14)=8; num_digits_(14)=1
4+4=8 is True in base 15; sum_(15)=8; num_digits_(15)=1
4+4=8 is True in base 16; sum_(16)=8; num_digits_(16)=1
4+4=8 is True in base 17; sum_(17)=8; num_digits_(17)=1
4+4=8 is True in base 18; sum_(18)=8; num_digits_(18)=1
4+4=8 is True in base 19; sum_(19)=8; num_digits_(19)=1
5+5=10 is False in base 6; sum_(6)=14; num_digits_(6)=2
5+5=10 is False in base 7; sum_(7)=13; num_digits_(7)=2
5+5=10 is False in base 8; sum_(8)=12; num_digits_(8)=2
5+5=10 is False in base 9; sum_(9)=11; num_digits_(9)=2
5+5=10 is True in base 10; sum_(10)=10; num_digits_(10)=2
5+5=10 is True in base 11; sum_(11)=10; num_digits_(11)=1
5+5=10 is True in base 12; sum_(12)=10; num_digits_(12)=1
5+5=10 is True in base 13; sum_(13)=10; num_digits_(13)=1
5+5=10 is True in base 14; sum_(14)=10; num_digits_(14)=1
5+5=10 is True in base 15; sum_(15)=10; num_digits_(15)=1
5+5=10 is True in base 16; sum_(16)=10; num_digits_(16)=1
5+5=10 is True in base 17; sum_(17)=10; num_digits_(17)=1
5+5=10 is True in base 18; sum_(18)=10; num_digits_(18)=1
5+5=10 is True in base 19; sum_(19)=10; num_digits_(19)=1
6+6=12 is False in base 7; sum_(7)=15; num_digits_(7)=2
6+6=12 is False in base 8; sum_(8)=14; num_digits_(8)=2
6+6=12 is False in base 9; sum_(9)=13; num_digits_(9)=2
6+6=12 is True in base 10; sum_(10)=12; num_digits_(10)=2
6+6=12 is False in base 11; sum_(11)=11; num_digits_(11)=2
6+6=12 is False in base 12; sum_(12)=10; num_digits_(12)=2
6+6=12 is True in base 13; sum_(13)=12; num_digits_(13)=1
6+6=12 is True in base 14; sum_(14)=12; num_digits_(14)=1
6+6=12 is True in base 15; sum_(15)=12; num_digits_(15)=1
6+6=12 is True in base 16; sum_(16)=12; num_digits_(16)=1
6+6=12 is True in base 17; sum_(17)=12; num_digits_(17)=1
6+6=12 is True in base 18; sum_(18)=12; num_digits_(18)=1
6+6=12 is True in base 19; sum_(19)=12; num_digits_(19)=1
7+7=14 is False in base 8; sum_(8)=16; num_digits_(8)=2
7+7=14 is False in base 9; sum_(9)=15; num_digits_(9)=2
7+7=14 is True in base 10; sum_(10)=14; num_digits_(10)=2
7+7=14 is False in base 11; sum_(11)=13; num_digits_(11)=2
7+7=14 is False in base 12; sum_(12)=12; num_digits_(12)=2
7+7=14 is False in base 13; sum_(13)=11; num_digits_(13)=2
7+7=14 is False in base 14; sum_(14)=10; num_digits_(14)=2
7+7=14 is True in base 15; sum_(15)=14; num_digits_(15)=1
7+7=14 is True in base 16; sum_(16)=14; num_digits_(16)=1
7+7=14 is True in base 17; sum_(17)=14; num_digits_(17)=1
7+7=14 is True in base 18; sum_(18)=14; num_digits_(18)=1
7+7=14 is True in base 19; sum_(19)=14; num_digits_(19)=1
8+8=16 is False in base 9; sum_(9)=17; num_digits_(9)=2
8+8=16 is True in base 10; sum_(10)=16; num_digits_(10)=2
8+8=16 is False in base 11; sum_(11)=15; num_digits_(11)=2
8+8=16 is False in base 12; sum_(12)=14; num_digits_(12)=2
8+8=16 is False in base 13; sum_(13)=13; num_digits_(13)=2
8+8=16 is False in base 14; sum_(14)=12; num_digits_(14)=2
8+8=16 is False in base 15; sum_(15)=11; num_digits_(15)=2
8+8=16 is False in base 16; sum_(16)=10; num_digits_(16)=2
8+8=16 is True in base 17; sum_(17)=16; num_digits_(17)=1
8+8=16 is True in base 18; sum_(18)=16; num_digits_(18)=1
8+8=16 is True in base 19; sum_(19)=16; num_digits_(19)=1
9+9=18 is True in base 10; sum_(10)=18; num_digits_(10)=2
9+9=18 is False in base 11; sum_(11)=17; num_digits_(11)=2
9+9=18 is False in base 12; sum_(12)=16; num_digits_(12)=2
9+9=18 is False in base 13; sum_(13)=15; num_digits_(13)=2
9+9=18 is False in base 14; sum_(14)=14; num_digits_(14)=2
9+9=18 is False in base 15; sum_(15)=13; num_digits_(15)=2
9+9=18 is False in base 16; sum_(16)=12; num_digits_(16)=2
9+9=18 is False in base 17; sum_(17)=11; num_digits_(17)=2
9+9=18 is False in base 18; sum_(18)=10; num_digits_(18)=2
9+9=18 is True in base 19; sum_(19)=18; num_digits_(19)=1
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