

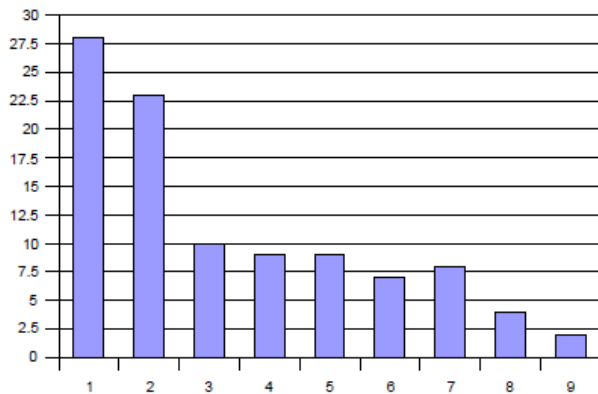


Benford's Law Solutions

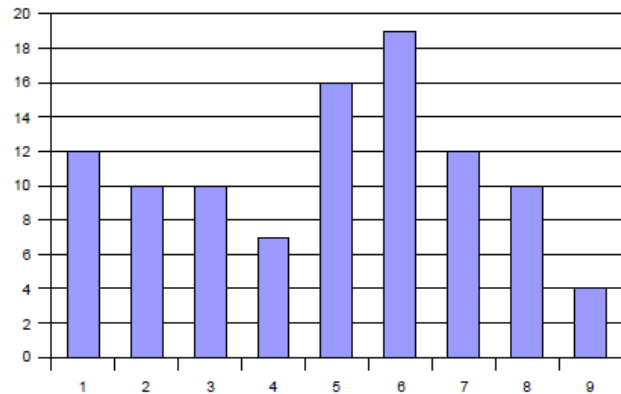
Dataset 1	
Leading digit	Number
1	28
2	23
3	10
4	9
5	9
6	7
7	8
8	4
9	2

Dataset 2	
Leading digit	Number
1	12
2	10
3	10
4	7
5	16
6	19
7	12
8	10
9	4

data set 1



data set 2



It should be obvious that the first set of data has a similarity with the Benford's Law probabilities where the second one doesn't! Thus we conclude dataset 1 is the real data.

Dataset 1 contains population data from 100 postcode areas from which children took part in CensusAtSchool 2004/05.

Dataset 2 contains a sequence of random numbers with first digits determined by rolling a die with digits 0-9 on it and filled in to simulate the population data using a computer pseudo-randomised number generator.

Included pupils from post codes: LE, NG, CM, PO, B, ST, TN, SG, SO, MK, SK, BB, PE, GL, CV, PL, TR, HG, DT, DE, HA, DL, RG, L, CH, BS, WR, WS, NN, DA, IP, CW, WF, SE, BN, LU, CT, DY, WD, S, HR, RH, EN, HD, EX, SR, RM, NR, WV, DH, NW, N, CB, LA, NE, OX, E, BL, HP, SN, AL, SP, LN, DN, M, IM, IG, W, TA, PR, BH, BR, UB, CO, WA, CF, SM, YO, BD, SW, GU, PH, WN, ME, KT, LS, TQ, CR, SL, GY, DD, EH, FY, NP, KY, SS, BA, WC, OL

Zero pupils took part from: BT, HX, DG, KA, HU, ML, TF, MR, LD, FK, PA, KW, ZE, A

Less than five pupils took part in each of: TS, CA, JE, TW, TD, G, IV, SY, SA, LL, HS, EC