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CS-225: Discrete Structures in CS
Homework 7, Part 1
Exercise Set 9.2 : Problem #12.b, #14.c, #14.e, #17.d, #18.c
Exercise Set 9.3 : Problem #5.a, #23.c, #29.g , #33.e, #34.b

12. b) $10\times 16\times 16\times 16\times 16\times 13 = 8{,}519{,}680$

14.

c)$4\times 26\times 26\times 26\times 10\times 10\times 10=70{,}304{,}000$

e)$2\times 25\times 24\times 23\times 10\times 9\times 8=19.872{,}000$

17. d) $5\times 8\times 8\times 7=2{,}240$

18. c) $3\times 4\text{^}8\times 1=196{,}608$

$196{,}608\times 196{,}607\times 196{,}606\times 196{,}605$

5. a) $9\times 10\times 10\times 10\times 2=18{,}000$

23. c) $1000-((1000/4)+(994/7))=1000-((225+142)-(980/7(4))=668$

29. g) $2^8 - 2$ [$because\ all\ 0's and\ all\ 1's are\ not\ allowed$]

$= 256 - 2 = 254$ possible host IDs are available.

33. e) 3 students checked both #2 and #3.

2 students checked all three. Therefore 3-2=1 student checked #2 and #3 but not #1

34. b) $21+21+31-41=32$

$14+15+9=38$

38-32=6 people got relief from all three drugs.