

Solutions to HW Set 4

Math 1350

2.6

1. (b) $5!=120$

(c) 90

(d) $26*25*24*23=358800$

2. (b) 1 (c) 45 (d) 14950

4. $7*6*5=210$ possible words of length 3. $7*6*5*4*3=2520$ possible words of length 5. $210/6 = 35$ choices of 3 cards, $2520/5!=21$ choices of 5 cards.

7. (a) $26*26*26*10*10*10=17576000$.

(b) $10*2*10=200$, whereas $10^3=1000$.

10. (a) 0

(b) .105

(c) 1

(d) .362

(e) .683

(f) .678

2.7

1. (b) Use (2.30) from the text book, get $34.026/ (.0132 + 17.0772) \approx 1.99 \approx 2$.
(c) $\approx 1.172 \approx 1$.
4. for $I=.03850001$, we have $k \approx .0265n/ (.02649999 + .00000001n) \approx n$
for large n .
for $I=.06499$, $k \approx .0265n/ (.00001 + .02649n) \approx 1$

8. (see back of book)

2.8

1. (See back of book).

Extra problem

Keyword: MUSICAL

LADY GAGA IS AN AMERICAN RECORDING ARTIST... (essentially the wikipedia entry on Lady Gaga)