

Worksheet

Math 118 section 004

Friday, March 7th, 2008

Name: _____

1. Suppose 1 in 5 cereal boxes contain a prize. In a shipment of 400 boxes, what are the odds that
 - (a) less than 80 boxes contain a prize?
 - (b) between 72 and 88 boxes contain a prize?
 - (c) less than 64 boxes contain a prize?

2. A certain brand of candy is supposed to come in a 100g bag. Due to manufacturing imperfections, it is found that actual weight of the bags is normally distributed with mean 100g and standard deviation 2.5g. Suppose you randomly in a shipment of 500 bags, estimate how many bags weigh
- (a) between 97.5g and 102.5g,
 - (b) between 95g and 105g,
 - (c) below 95g,
 - (d) above 107.5g.

	A	B	C	D	E	F	G
A	*	120	83	76	65	61	101
B	120	*	58	95	68	58	100
C	83	58	*	105	88	187	165
D	76	95	105	*	150	200	105
E	65	68	88	150	*	180	170
F	61	58	187	200	180	*	130
G	101	100	165	105	170	130	*

Table 1: Distances between cities

- Suppose a band is doing a tour of 7 cities. They want to find a route between the 7 cities that is relatively short. Use the cheapest link algorithm to find a suitable circuit.