Name:　　　　　　　　　　　　　　　　　　　　　　Date: Friday, September 30, 2016

MATH 181 F1 Quiz #5

Directions: You have 15 minutes for this quiz. Please write clearly and justify your answers.

Question 1 (3 points):
Use the Caesar cipher with (encrytion) key 3 to encrypt:

<div align="center">

I　L　L　I　N　I

</div>

Question 2 (3 points):
Use the decimation cipher with (encrytion) key 3 to encrypt:

<div align="center">

I　L　L　I　N　I

</div>

Question 3 (4 points):
Consider the following preference lists.

	Voter 1	Voter 2	Voter 3	Voter 4	Voter 5	Voter 6	Voter 7
1st	C	C	D	D	C	B	A
2nd	A	A	A	A	D	D	D
3rd	B	B	C	C	A	A	B
4th	D	D	B	B	B	C	C

Calculate the winner using:

1. plurality voting,

2. the Borda count,

3. and the Hare system.