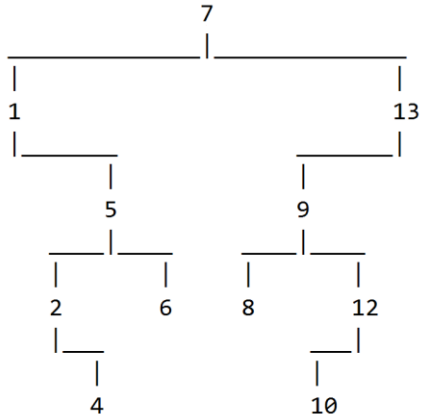
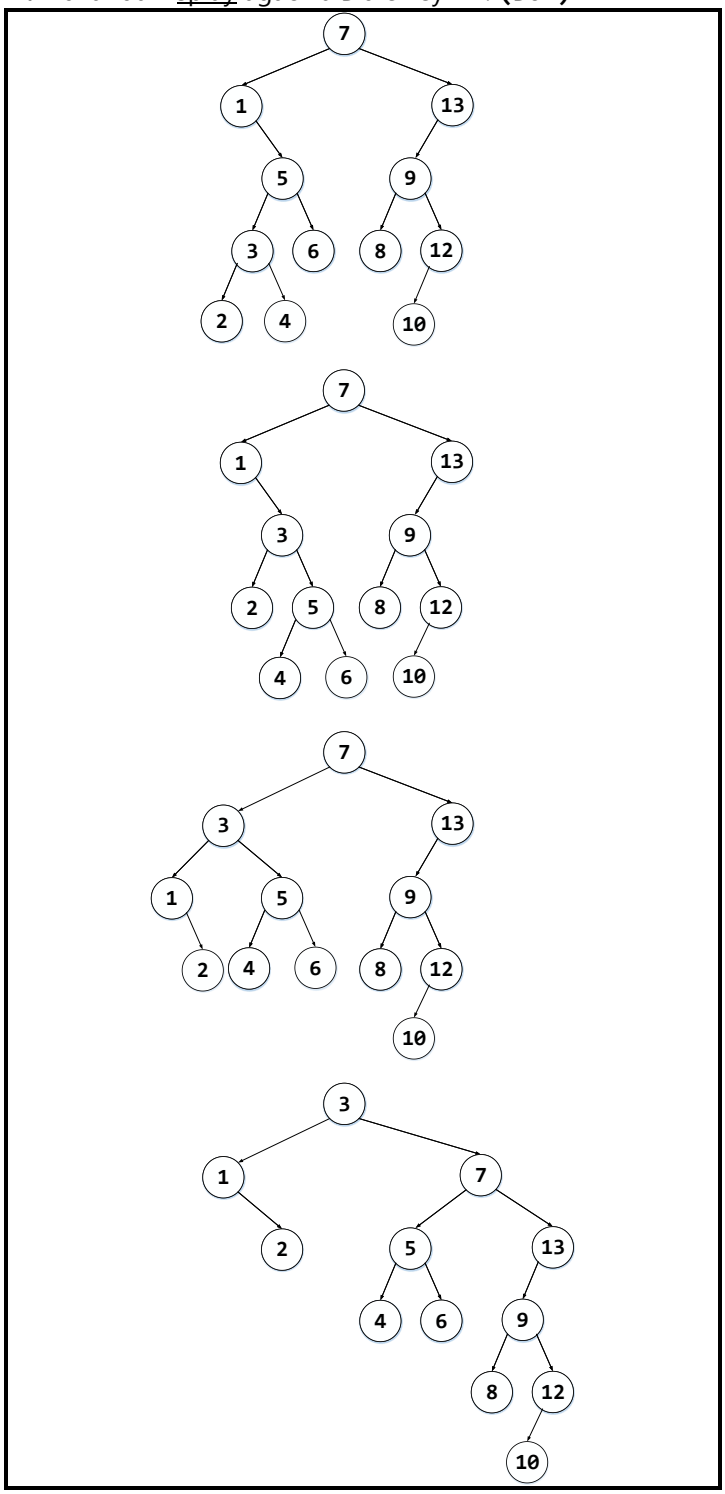
Karadeniz Teknik Üniversitesi
Bilgisayar Mühendisliği Bölümü
Öğr.Gör. Ömer ÇAKIR

BIL 205 Veri Yapıları
Final Sınavı, 02.01.2015, 15:00, D-2, D-5
Süre : **90** Dakika

B GRUBU CEVAPLAR



1. Yukarıdaki splay ağacına **3**'ü ekleyiniz. **(30P)**



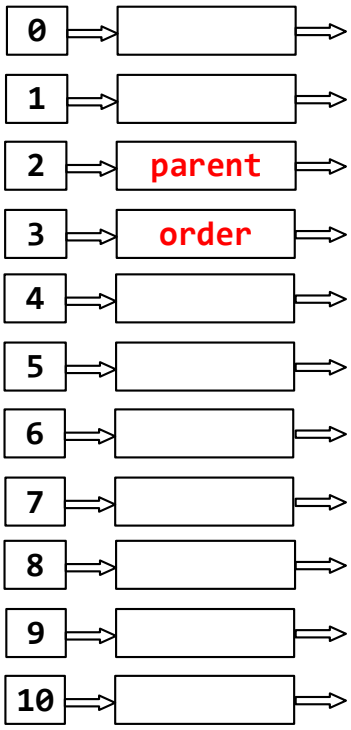

```
int Hash (char* key)
{
  int sum = 0;
  for (int j=0; j<4; j += 2)
    sum += 4*key[j] + key[j+1];

  sum = sum % 11 ;
  return sum;
}
```

dictionary.txt

list	liste
nuts	findik
object	nesne
order	duzen
parent	baba
queue	kuyruk
stack	yigin
tree	agac

2. Yukarıda `dictionary.txt`'de verilen kelimeleri `Hash()` fonksiyonunu ve çakışma çözümleme yöntemi olarak linear probing'i kullanarak `relative.txt`'ye yazınız. Ayrıca synonym chaining yöntemine göre bağlı listelere ilgili kayıtları ekleyiniz. **(30P)**

relative.txt		a-97	n-110
0	object nesne	b-98	o-111
1	queue kuyruk	c-99	p-112
2	list liste	d-100	q-113
3	nuts findik	e-101	r-114
4		f-102	s-115
5	tree agac	g-103	t-116
6		h-104	u-117
7	stack yigin	i-105	v-118
8		j-106	w-119
9		k-107	x-120
10		l-108	y-121
	ASCII Tablo →	m-109	z-122



```
bool empty()
{
   return (header->next == trailer);
}

void addFront(const int& i)
{
   add(header->next, i);
}

void add(DoublyNode* v, int& i)
{
   DoublyNode* u      = new DoublyNode;
   u->score           = i;
   .....
   .....
   .....
   .....
}

void main()
{
   DoublyLinkedList list;
   list.addFront(750);
   list.addFront(720);
}
```

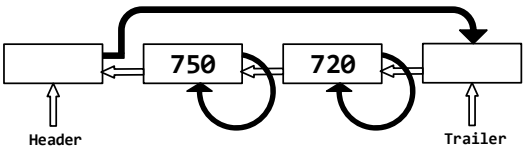
3. Yukarıdaki programda `add()` fonksiyonunda `.....` ile temsil edilen satırlar:

i) (20P) *(Yanlış cevaptan 5P kırılacaktır)*

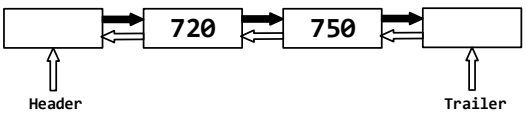
```
v->prev->next    = u;
v->prev          = u;
u->prev          = v->prev;
u->next          = v;
```

olduğunda listenin son hali :

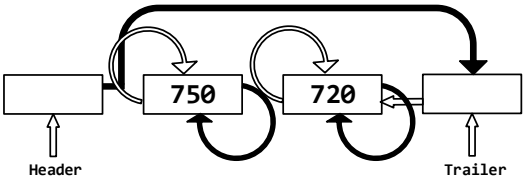
(A)



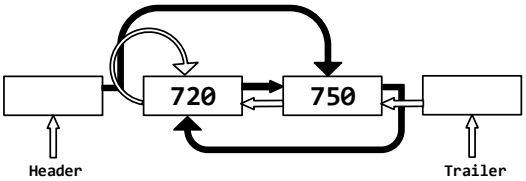
(B)



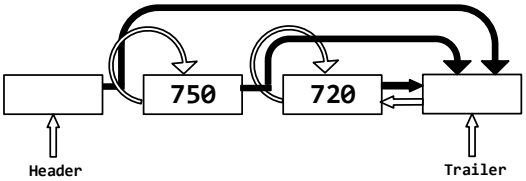
(C)



(D)



(E)

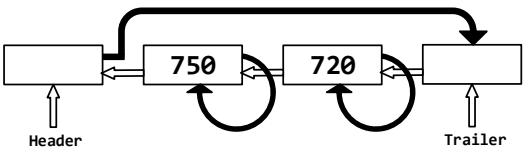


ii) (20P) *(Yanlış cevaptan 5P kırılacaktır)*

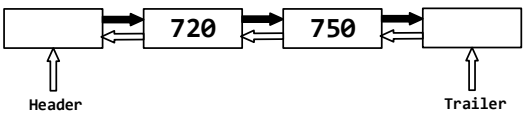
```
v->prev          = u;
v->prev->next    = u;
u->prev          = v->prev;
u->next          = v;
```

olduğunda listenin son hali :

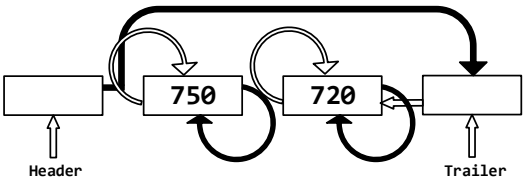
(A)



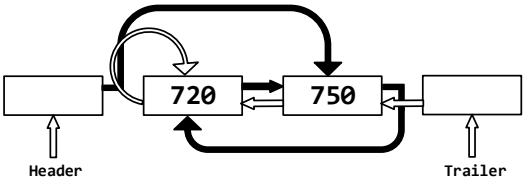
(B)



(C)



(D)



(E)