Introduction to Programming

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Arrays

Arrays

```
int num[20];
```

Arrays

int num[20];

Variable	Address	Value
num[0]	68400	
num[1]	68404	
num[2]	68408	
num[3]	68412	
num[18]	68472	
num[19]	68476	

Arrays

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num[0]	68400	
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num[0]=287;
num[3]=-50;

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num[0]=287;
num[3]=-50;
x=2;

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num[0]	68400	
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num[0]=287;
num[3]=-50;
x=2;

num[x]=841;

Arrays

int num[100];

Variable	Address	Value
num[0]	68400	287
num[1]	68401	
num[2]	68402	841
num[3]	68403	-50
num[98]	68498	
num[99]	68499	

num[0]=287;
num[3]=-50;
x=2;

num[x]=841;

Integer arrays

```
int num[20], i=0;
while(i<20)
{
num[i]=i;
i=i+1;
}
```

char arrays

char text[20]="CAT";

Variable	Address	Value
text[0]	68400	C
text[1]	68401	A
text[2]	68402	T
text[3]	68403	\0
text[19]	68498	

Useful block for strings

```
i=0;
while(text[i]!='\0')
{
printf("\n %d",text[i]);
i=i+1;
}
```

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printf("%s",text); also works.

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printf("\n %d",text[i]);
i=i+1;
}
```

printf("%s",text); also works.

Input: fgets(text,10,stdin);

P2: Finding the maximum of a sequence of numbers

40

P2: Finding the maximum of a sequence of numbers

80

P2: Finding the maximum of a sequence of numbers

64

P2: Finding the maximum of a sequence of numbers

32

P2: Finding the maximum of a sequence of numbers

56