```
H^SAMPLE^0010^0020
T^0010^030101^042020^05$
E
```

```
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc program8.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
 Enter program name: SAMPLE
 Name from obj: SAMPLE
 0010    1^
 0011    04
 0012    20
 0013    20
 0014    05
```

```
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc program9.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
 Enter the number of productions: 8
 Enter 8 productions:
 Epsilon=$
 E=TD
 D=+TD
 D=$
 T=FS
 S=*FS
 S=$
 F=(E)
 F=a
 Element : E

 FIRST(E) = { ( a }
 Press 1 to continue: 1
 Element : D

 FIRST(D) = { + $ }
 Press 1 to continue: 1
 Element : T

 FIRST(T) = { ( a }
 Press 1 to continue: 1
 Element : S

 FIRST(S) = { * $ }
 Press 1 to continue: 0
 (base) shreeramads@Shreeramas-MacBook-Air flexPrograms %
```

```
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc program10.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
GRAMMAR is
E->E+E
E->E*E
E->(E)
E->id
Enter input string: id+id*id
stack     input    action

$       id+id*id$       ---
$id       +id*id$       SHIFT->id
$Ed       +id*id$       REDUCE TO E
$         +id*id$       SHIFT->symbols
$ +        id*id$       SHIFT->symbols
$ +id       *id$        SHIFT->id
$ +Ed       *id$        REDUCE TO E
$ +         *id$        SHIFT->symbols
$ + *        id$        SHIFT->symbols
$ + *id       $         SHIFT->id
$ + *Ed       $         REDUCE TO E
$ + *         $         SHIFT->symbols%
(base) shreeramads@Shreeramas-MacBook-Air flexPrograms %
```

```
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc forprogram11.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
Enter a number: 15
Factorial of 15 is: 1307674368000
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc recprogram11.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
Enter a number: 15
Factorial of 15 is 1307674368000
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % gcc doprogram11.c
[(base) shreeramads@Shreeramas-MacBook-Air flexPrograms % ./a.out
Enter a number: 15
Factorial of 15 is 1307674368000
(base) shreeramads@Shreeramas-MacBook-Air flexPrograms %
```