# 14

## <ins>Answers to Even-numbered Exercises</ins>

2. Write an awk program that displays the number of characters in the first field followed by the first field and sends its output to standard output.

```
$ awk '{print length($1), $1}' filename
```

4. Use awk to determine how many lines in **/etc/services** contain the string **Unassigned**. Verify your answer using grep.

```
$ cat unassigned
BEGIN   {count=0}
/Unassigned/ {count++}
END     {print "There are", count, "lines with the string Unassigned"}

$ awk -f unassigned /etc/services
There are 448 lines that contain the string Unassigned

$ grep -c Unassigned /etc/services
448
```

You do not need to initialize **count**.

6. Write an shell script named **listproc** that uses awk and displays the PID numbers of processes whose names match the argument given to the script.

```
$ cat listproc
#!/bin/bash
ps -ax | awk '$5 ~ /'"$1"'/ { print $1}; }'
```

The argument to awk is in two parts, each delimited by pairs of single quotation marks. Between these parts is the first command line parameter, or argument (**$1**), enclosed within double quotation marks.