


## Bio 720 - Assignment 02

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`echo hello world`

tells the shell to print the content after `echo` to STDOUT

`date`

print the current date to STDOUT

`hostname`

print the name of the computer you're on to STDOUT

`uname -a`

same as `uname -mnrsv`, print the name of the operating system (OS), name of the node, the release level of the OS, name of the implementation of the OS, and version of the OS.

`uptime`

print the time that the system has been running, number of users logged on and the system load average in the past 1, 5, and 15 minutes

`whoami`

print the name of the current user to STDOUT

`echo $SHELL`

print the path to the current shell

`echo {con,pre}{sent,fer}{s,ed}`

print all the combinations of the items inside the braces to STDOUT

`clear`

clears the terminal screen

`bc -l 41^73`

opens a basic calculator that has the standard math library loaded (-l), and performs the calculation

`echo 5+4 | bc -l`

send 5+4 to basic calculator

`sleep 5`

suspend the shell for 5 seconds

<code>history</code>	show the command history
<code>du -sh /home/yourUserID</code>	estimates the total disk space usage by the files of the home directory and the return value is displayed in human-readable form
<code>du -sh /home/yourUserID/</code>	estimate the total disk space usage by each file in the home directory and the return value is displayed in human-readable form

3.

<code>cal</code>	prints a small calendar of the current month																																										
<code>cal -3</code>	prints 3 months spanning the current date																																										
<code>cal 9 2018</code>	prints the calendar of September 2018																																										
<code>cal 9 1752</code>	prints the calendar of September 1752 (start of the Gregorian reformation)																																										
<code>cal 28 1 1995</code>	<p>Saturday</p> <p>January 1995</p> <table border="0"> <tr> <td>Su</td><td>Mo</td><td>Tu</td><td>We</td><td>Th</td><td>Fr</td><td>Sa</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td> </tr> <tr> <td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td> </tr> <tr> <td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td> </tr> <tr> <td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td> </tr> <tr> <td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td> </tr> </table>	Su	Mo	Tu	We	Th	Fr	Sa	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
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4. `chmod` changes the file into an executable for the user.

```
Hello World!
Today is
Tue Sep 18 15:59:15 EDT 2018
```

5. `ls -l .forward`

```
-rw-rw-r-- 1 lucy 21 Sep 18 15:12 .forward
```

```
more .forward
zhangsj3@mcmaster.ca
```

```
6. ls -l .nanorc
-rw-r--r-- 1 lucy 11 Sep 18 15:52 .nanorc
```

```
more .nanorc
set regexp
```

```
7. On info: cat /etc/passwd | wc -l
```

```
8.
```

```
grep -e 'gene\s{2,}' Dmelanogaster.gbk returns list of genes
grep -ce 'gene\s{2,}' Dmelanogaster.gbk returns number of genes
37
grep -ce 'tRNA\s{2,}' Dmelanogaster.gbk returns number of tRNA
22
grep -ce 'rRNA\s{2,}' Dmelanogaster.gbk returns number of rRNA
2
```

```
9. grep -ce 'gene\s{2,}' Bacillus_genomes/Bacillus_anthraxis_Ames_NC_003997.gbk
5630
grep -ce 'gene\s2,' Arabidopsis_mt.gbk
66
```

```
10. grep -ce '\d+\s.*(t\s{0,1}a\s{0,1}t\s{0,1}t\s{0,1}a)' Bacillus_anthraxis_Aes_NC_003997.gbk
```