[https://unix.stackexchange.com/questions/194912/what-is-the-email-matching-regex-in-basic-regex-for-grep]

echo "mahmoudfierr@gmail.com" | grep -c -E "^[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-z]{2,}"

OR

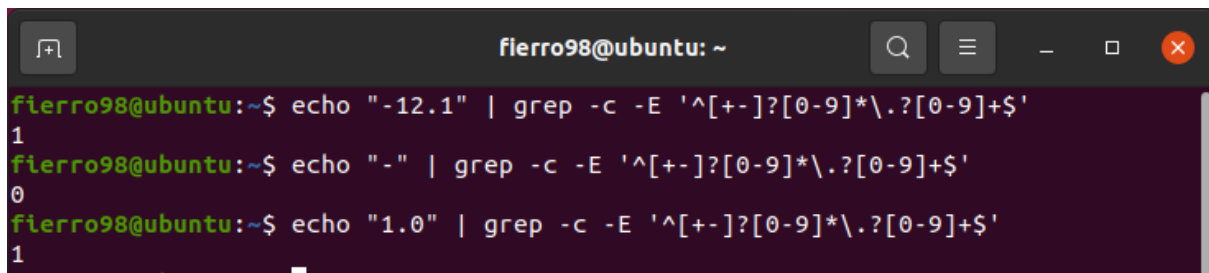echo "mahmoudfierr@gmail.com" | grep -c '^[a-zA-Z0-9]\+@[a-zA-Z0-9]\+\.[a-z]\{2,\}'

2-Validate a floating point number (negative and poisitive)
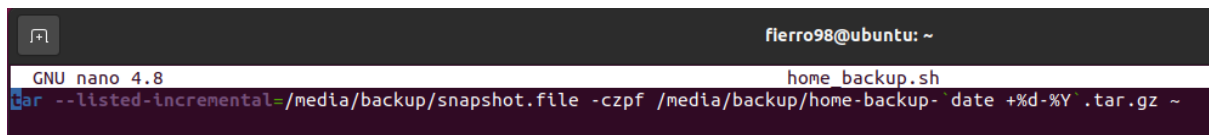
echo "-12.1" | grep -c -E '^[+-]?[0-9]*\.?[0-9]+$'

3-Backup your home directory in compressed archive in a directory /backup every day The archive name must be home-backup-<day>-<year>.tar.gz

touch home_backup.sh

nano home_backup.sh

tar --listed-incremental=/media/backup/snapshot.file -czpf /media/backup/home-backup-`date +%d-%Y`.tar.gz ~

chmod +754 home_backup.sh

sudo crontab -u $USER -e

```
  GNU nano 4.8              /tmp/crontab.SakvtT/crontab            Modified
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h  dom mon dow   command
0 3 * * * /home/$USER/home_backup.sh


^G Get Help    ^O Write Out   ^W Where Is    ^K Cut Text    ^J Justify
^X Exit        ^R Read File   ^\ Replace     ^U Paste Text  ^T To Spell
```

0 3 * * * /home/$USER/home_backup.sh

```
fierro98@ubuntu:~$ sudo crontab -u fierro98 -e
crontab: installing new crontab
```

4-Save the system load, and memory used in log file (syslog) every min

while true; do (echo "%CPU %MEM ARGS $(date)" && ps -e -o pcpu,pmem,args --sort=pcpu | cut -d" " -f1-5) >> syslog.log; sleep 60; done