1.

a. Humans and rats have the greatest number of orthologs, whereas worms and yeasts have the least number of orthologs.

2.

a. Using sh awkcel.sh 'date=="2011-07-01" {print AMZN, MSFT}; date=="2011-07-05" {print AMZN, MSFT}' /home/wayne/pub/cs146/awkcel/historical.2011.tsv

July 1st: AMZN 209.49 MSFT 26.02

July 5th: AMZN 213.19 MSFT 26.03

They went up during the July 4th holiday

b. Using sh awkcel.sh '{print date, AMZN}' /home/wayne/pub/cs146/awkcel/historical.2011.tsv
The worst day was 2011-10-25 when AMZN when down by \$29.07 per share

c.

3. sh awkcel.sh "\$(cat galaxy.sh)" /home/wayne/pub/cs146/awkcel/SDSS+GZ1+SpArcFiRe+SFR.tsv
There are 525464 galaxies whose P_SP equal zero exactly, and there are 94299 galaxies whose P_SP equal 1 exactly.