# SA Homework 3 Answers

**1**

```
$ sudo su
$ yum install virt-install qemu-kvm libvirt
$ systemctl start libvirtd
$ systemctl enable libvirtd
```

**2**

```
$ mkdir /data
$ mkdir /data/img
$ qemu-img create -f qcow2 /data/img/nasa.qcow2 10G
$ brctl addbr br0
$ brctl addif br0 ens33
$ vim /etv/sysconfig/network-script/ifcfg-ens33
###
#    TYPE=Ethernet
#    NAME=ens33
#    UUID={UUID}
#    DEVICE=ens33
#    ONBOOT=yes
#    BRIDGE=br1
#    BOOTPROTO=none
###
$ vim /etv/sysconfig/network-script/ifcfg-br1
###
#   TYPE=Bridge
#   PROXY_METHOD=none
#   BROWSER_ONLY=no
#   BOOTPROTO=dhcp
#   DEFROUTE=yes
#   IPV4_FAILURE_FATAL=yes
#   IPV6INIT=no
#   NAME=br1
#   UUID={UUID}
#   DEVICE=br1
#   ONBOOT=yes
###
$ systemctl restart network
$ virt-install \
      --name=nasa \
      --disk path=/data/img/nasa.qcow2 \
      --vcpus=4 --ram=1024 \
      --location=http://centos.cs.nctu.edu.tw/7/os/x86_64/ \
      --network bridge=br1 \
      --nographics \
      --os-type=linux \
      --os-variant=centos7.0 \
      --initrd-inject=anaconda-ks.cfg \
      --extra-args "ks=file:/root/anaconda-ks.cfg text console=tty0 c
```

3

```
$ virsh console nasa
```

**4**

```
$ virsh list --all
$ virsh undefine [domain name] #vm should be stopped
$ virsh edit [domain name]
$ virsh domiflist [domain name]
$ brctl show
```

**5**

```
$ virsh snapshot-create-as \
        --domain nasa \
        --diskspec vda,file=$SNAP_PATH \
        --disk-only --atomic
$ rsync -avh --progress /data/img/nasa.qcow2 /bc-img/nasa_backup.qcow2
$ virsh blockcommit nasa vda --active --verbose --pivot
$ rm $SNAP_PATH
```