1. Display a list of running processes.

Ans. Get-Process

```
PS C:\> Get-Process

Handles  NPM(K)    PM(K)     WS(K)    CPU(s)    Id  SI ProcessName
-------  ------    -----     -----    ------    --  -- -----------
    434      25    12632     30408      1.36 12616   2 ApplicationFrameHost
    146       9     1804       920      0.09  4812   0 armsvc
    656      55    71976     58996     39.06  2284   2 atmgr
    247      14    13544     20364      0.63  6028   0 audiodg
```

2. Display the 100 most recent entries from the Application event log. (Don't use Get-WinEvent for this. We've shown you another command that will do this task.) This is for Windows operating systems only.

Ans. Get-EventLog -LogName Application -Newest 100

```
PS C:\> Get-EventLog -LogName Application -Newest 100

  Index Time            EntryType   Source              InstanceID Message
  ----- ----            ---------   ------              ---------- -------
  18745 Feb 27 23:17    Information edgeupdate                   0 Service stopped.
  18744 Feb 27 23:13    Information Office Software P... 1073742827 The Software Protection service has completed 1...
  18743 Feb 27 23:13    Information Office Software P... 1073742827 The Software Protection service has completed 1...
```

3. Display a list of all commands that are of the cmdlet type. (This is tricky—we've shown you Get-Command, but you're going to have to read the help to find out how to narrow down the list as we've asked.)

Ans. Get-Command -CommandType Cmdlet

```
PS C:\> Get-Command -CommandType Cmdlet

CommandType     Name                                                Version    Source
-----------     ----                                                -------    ------
Cmdlet          Add-ADCentralAccessPolicyMember                     1.0.0.0    ActiveDirectory
Cmdlet          Add-ADComputerServiceAccount                        1.0.0.0    ActiveDirectory
Cmdlet          Add-ADDomainControllerPasswordReplicationPolicy     1.0.0.0    ActiveDirectory
Cmdlet          Add-ADFineGrainedPasswordPolicySubject              1.0.0.0    ActiveDirectory
```

```
PS C:\> Get-Command -CommandType Cmdlet | measure


Count     : 1065
Average   :
Sum       :
Maximum   :
Minimum   :
Property  :




PS C:\>
```

4. Display a list of all aliases.
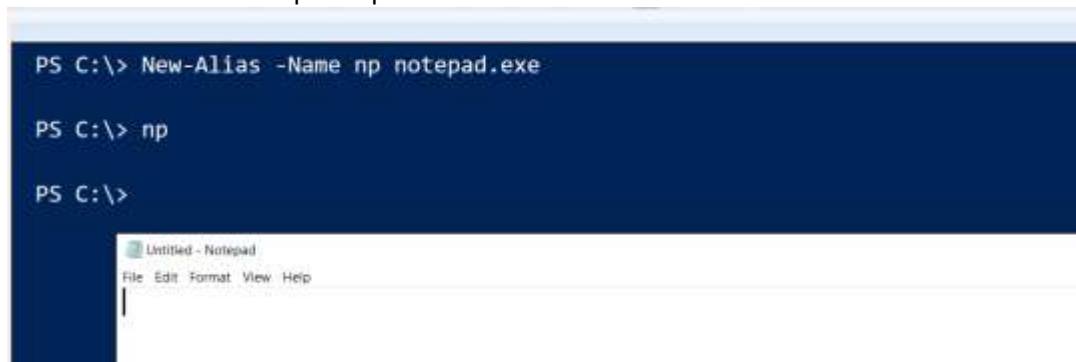
Ans. Get-Command -CommandType Alias

```
PS C:\> Get-Command -CommandType Alias

CommandType     Name                                       Version    Source
-----------     ----                                       -------    ------
Alias           % -> ForEach-Object
Alias           ? -> Where-Object
Alias           ac -> Add-Content
Alias           Add-AppPackage                             2.0.1.0    Appx
Alias           Add-AppPackageVolume                       2.0.1.0    Appx
Alias           Add-AppProvisionedPackage                  3.0        Dism
Alias           Add-ProvisionedAppPackage                  3.0        Dism
Alias           Add-ProvisionedAppxPackage                 3.0        Dism
Alias           Add-ProvisioningPackage                    3.0        Provisioning
Alias           Add-TrustedProvisioningCertificate         3.0        Provisioning
Alias           Add-VMToCluster                            2.0.0.0    FailoverClusters
Alias           Add-WindowsFeature                         2.0.0.0    ServerManager
```

5. Make a new alias, so you can run np to launch Notepad from a PowerShell prompt. This is for Windows only unless you've installed wine on Linux.

Ans. New-Alias -Name np notepad.exe

```
PS C:\> New-Alias -Name np notepad.exe

PS C:\> np

PS C:\>
```

Untitled - Notepad
File Edit Format View Help

6. Display a list of services that begin with the letter M. Again, read the help for the necessary command—and don't forget that the asterisk (*) is a near-universal wildcard in PowerShell. Note that this will work only on Windows operating systems.

Ans. Get-Command -Noun *service

```
PS C:\> Get-Command -Noun *service

CommandType     Name                                       Version    Source
-----------     ----                                       -------    ------
Function        Get-SMServerService                        1.0.0.0    ServerManagerTasks
Cmdlet          Get-Service                                3.1.0.0    Microsoft.PowerShell.
Cmdlet          New-Service                                3.1.0.0    Microsoft.PowerShell.
Cmdlet          Restart-Service                            3.1.0.0    Microsoft.PowerShell.
Cmdlet          Resume-Service                             3.1.0.0    Microsoft.PowerShell.
Cmdlet          Set-Service                                3.1.0.0    Microsoft.PowerShell.
```

7. Display a list of all Windows Firewall rules. You'll need to use Help or Get -Command to discover the necessary cmdlet. Again, this will work only on Windows operating systems.

Ans. Get-NetFirewallRule

```
PS C:\> Get-NetFirewallRule
```

8. Display a list only of inbound Windows Firewall rules. You can use the same cmdlet as in the previous task, but you'll need to read its help to discover the necessary parameter and its allowable values. Once more, Windows operating systems only for this one.

Ans. Get-NetFirewallRule -Direction Inbound

```
PS C:\> Get-NetFirewallRule -Direction Inbound


Name                : SNMPTRAP-In-UDP
DisplayName         : SNMP Trap Service (UDP In)
Description         : Inbound rule for the SNMP Trap Service to allow SN
DisplayGroup        : SNMP Trap
```