1.

```
Windows PowerShell                                                    —    □    ✕

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\arvaidora> $PSVersionTable

Name                           Value
----                           -----
PSVersion                      5.1.19041.610
PSEdition                      Desktop
PSCompatibleVersions           {1.0, 2.0, 3.0, 4.0...}
BuildVersion                   10.0.19041.610
CLRVersion                     4.0.30319.42000
WSManStackVersion              3.0
PSRemotingProtocolVersion      2.3
SerializationVersion           1.1.0.1


PS C:\Users\arvaidora>
```

2.

```
   TypeName: System.ServiceProcess.ServiceController

Name                      MemberType    Definition
----                      ----------    ----------
Name                      AliasProperty Name = ServiceName
RequiredServices          AliasProperty RequiredServices = ServicesDependedOn
Disposed                  Event         System.EventHandler Disposed(System.Object, System.EventArgs)
Close                     Method        void Close()
Continue                  Method        void Continue()
CreateObjRef              Method        System.Runtime.Remoting.ObjRef CreateObjRef(type requestedType)
Dispose                   Method        void Dispose(), void IDisposable.Dispose()
Equals                    Method        bool Equals(System.Object obj)
ExecuteCommand            Method        void ExecuteCommand(int command)
GetHashCode               Method        int GetHashCode()
GetLifetimeService        Method        System.Object GetLifetimeService()
GetType                   Method        type GetType()
InitializeLifetimeService Method        System.Object InitializeLifetimeService()
Pause                     Method        void Pause()
Refresh                   Method        void Refresh()
Start                     Method        void Start(), void Start(string[] args)
Stop                      Method        void Stop()
WaitForStatus             Method        void WaitForStatus(System.ServiceProcess.ServiceControllerStatus ...
CanPauseAndContinue       Property      bool CanPauseAndContinue {get;}
CanShutdown               Property      bool CanShutdown {get;}
CanStop                   Property      bool CanStop {get;}
Container                 Property      System.ComponentModel.IContainer Container {get;}
DependentServices         Property      System.ServiceProcess.ServiceController[] DependentServices {get;}
DisplayName               Property      string DisplayName {get;set;}
MachineName               Property      string MachineName {get;set;}
ServiceHandle             Property      System.Runtime.InteropServices.SafeHandle ServiceHandle {get;}
ServiceName               Property      string ServiceName {get;set;}
ServicesDependedOn        Property      System.ServiceProcess.ServiceController[] ServicesDependedOn {get;}
ServiceType               Property      System.ServiceProcess.ServiceType ServiceType {get;}
Site                      Property      System.ComponentModel.ISite Site {get;set;}
StartType                 Property      System.ServiceProcess.ServiceStartMode StartType {get;}
Status                    Property      System.ServiceProcess.ServiceControllerStatus Status {get;}
ToString                  ScriptMethod  System.Object ToString();


PS C:\Users\arvaidora>
```

3.

```
PS C:\Users\arvaidora> Get-Service

Status    Name               DisplayName
------    ----               -----------
Stopped   AarSvc_5ae4a       Agent Activation Runtime_5ae4a
Stopped   AJRouter           AllJoyn-útválasztó szolgáltatás
Stopped   ALG                Alkalmazási réteg átjárószolgáltatása
Stopped   AppIDSvc           Alkalmazásidentitás
Running   Appinfo            Alkalmazásinformációk
Stopped   AppMgmt            Alkalmazásvezérlés
Stopped   AppReadiness       Alkalmazás-előkészítő
Stopped   AppVClient         Microsoft App-V Client
Running   AppXSvc            AppX Deployment Service (AppXSVC)
Stopped   AssignedAccessM... AssignedAccessManager szolgáltatás
Running   AudioEndpointBu... Windows-hangvégpontépítő
Running   Audiosrv           Windows audió
Stopped   autotimesvc        Mobilhálózati idő
Stopped   AxInstSV           ActiveX Telepítő (AxInstSV)
Stopped   BcastDVRUserSer... Játékvideó-rögzítő és Közvetítés fe...
Stopped   BDESVC             BitLocker meghajtótitkosítási szolg...
Running   BFE                Alap szűrőprogram
Stopped   BITS               Háttérben futó intelligens átviteli...
Stopped   BluetoothUserSe... Felhasználói Bluetooth-támogatási s...
Running   BrokerInfrastru... Háttérfeladatok infrastruktúra-szol...
Running   BTAGService        Bluetooth-hangátjáró szolgáltatás
```

4.

```
PS C:\Users\arvaidora> Get-ChildItem /


    Directory: C:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        2020. 01. 23.     21:58            Drivers
d-----        2020. 12. 21.     21:04            Files
d-----        2019. 09. 12.     20:21            Intel
d-----        2021. 03. 06.     13:50            msys64
d-----        2019. 12. 07.     10:14            PerfLogs
d-r---        2021. 02. 20.     14:54            Program Files
d-r---        2021. 03. 05.     11:12            Program Files (x86)
d-----        2019. 12. 22.     14:39            SteamLibrary
d-----        2020. 12. 21.     22:00            totalcmd
d-r---        2020. 12. 21.     21:01            Users
d-----        2020. 11. 25.     19:07            wamp64
d-----        2021. 02. 21.     16:07            Windows
d-----        2020. 12. 21.     21:10            Windows.old.000
d-----        2021. 03. 05.     16:56            Wowangames
```

5.

```
PS C:\Users\arvaidora> Get-Alias

CommandType     Name                                           Version    Source
-----------     ----                                           -------    ------
Alias           % -> ForEach-Object
Alias           ? -> Where-Object
Alias           ac -> Add-Content
Alias           asnp -> Add-PSSnapin
Alias           cat -> Get-Content
Alias           cd -> Set-Location
Alias           CFS -> ConvertFrom-String                      3.1.0.0    Microsoft.PowerShell.Utility
Alias           chdir -> Set-Location
Alias           clc -> Clear-Content
Alias           clear -> Clear-Host
Alias           clhy -> Clear-History
Alias           cli -> Clear-Item
Alias           clp -> Clear-ItemProperty
Alias           cls -> Clear-Host
Alias           clv -> Clear-Variable
Alias           cnsn -> Connect-PSSession
Alias           compare -> Compare-Object
Alias           copy -> Copy-Item
Alias           cp -> Copy-Item
Alias           cpi -> Copy-Item
Alias           cpp -> Copy-ItemProperty
Alias           curl -> Invoke-WebRequest
Alias           cvpa -> Convert-Path
Alias           dbp -> Disable-PSBreakpoint
Alias           del -> Remove-Item
Alias           diff -> Compare-Object
Alias           dir -> Get-ChildItem
Alias           dnsn -> Disconnect-PSSession
Alias           ebp -> Enable-PSBreakpoint
Alias           echo -> Write-Output
```

6.

```
PS C:\Users\arvaidora> New-Alias "processz" Get-Process
PS C:\Users\arvaidora> processz

Handles  NPM(K)    PM(K)     WS(K)    CPU(s)     Id  SI ProcessName
-------  ------    -----     -----    ------     --  -- -----------
    429      25    23400     19552      4,72  10412   1 ApplicationFrameHost
    289      12    10784     15524     25,03   2280   0 audiodg
    141       7     3180      4060      1,97   4840   1 CompPkgSrv
    101       7     6324      5576      0,11   5452   1 conhost
    273      14     7012     19588      4,06  12584   1 conhost
   2146      19   181720     18216    344,22   6016   1 ctfmon
    763      23     1984      2596              756   0 csrss
    800      26     3664      5532              864   1 csrss
     84       5      828      1260            10176   0 dasHost
    219      10     6100      8412      0,20  11484   1 dirmngr
    584      17     5084      8708      4,42   9348   1 dllhost
    124       7     1696      2000      0,11   9832   1 dllhost
   2020      67   470368    151772             1292   1 dwm
    115       7     1776      4076             4504   0 esif_uf
   3208     116   156000    119660  2 455,89   2864   1 explorer
     32       6     1632      2144                8   0 fontdrvhost
     39       9     5652     11272             1232   1 fontdrvhost
    171      10     1604      1136             8224   0 GoogleCrashHandler
    154       9     1664       588             8232   0 GoogleCrashHandler64
    176       8     5548      6144      1,84   6964   1 gpg-agent
      0       0       60         8                0   0 Idle
    172      10     2016      3224             2240   0 igfxCUIService
   9113      33    16000     15188     22,81   5736   1 igfxEM
    167       8     1836      4372             4148   0 IntelCpHDCPSvc
    411      19     5036      8000      2,94   9512   1 jusched
    683      28    14292     38580     21,70   8000   1 LockApp
   1637      28     9316     15392              948   0 lsass
      0       0     1964    473152             2908   0 Memory Compression
   1005      50    50744      6996      3,34   1636   1 Microsoft.Photos
    490      24   145776     19072            11632   0 MoUsoCoreWorker
   5175      99  1266892    500404             4356   0 MsMpEng
    214      14    26092     17712             2952   0 NisSrv
    300      14     6380      7440             2504   0 NVDisplay.Container
    691      24    34008     13744             2948   1 NVDisplay.Container
    683      26    37936     33724             4252   0 OfficeClickToRun
```

7.

```
PS C:\Users\arvaidora> Get-Service | fl name, status


Name    : AarSvc_5ae4a
Status  : Stopped

Name    : AJRouter
Status  : Stopped

Name    : ALG
Status  : Stopped

Name    : AppIDSvc
Status  : Stopped

Name    : Appinfo
Status  : Running

Name    : AppMgmt
Status  : Stopped

Name    : AppReadiness
Status  : Stopped

Name    : AppVClient
Status  : Stopped

Name    : AppXSvc
Status  : Stopped

Name    : AssignedAccessManagerSvc
Status  : Stopped

Name    : AudioEndpointBuilder
Status  : Running
```

8.a,

```
PS C:\Users\arvaidora> Get-Process | Sort-Object name

Handles  NPM(K)    PM(K)    WS(K)   CPU(s)     Id  SI ProcessName
-------  ------    -----    -----   ------     --  -- -----------
    429      25    23400    19552     4,73  10412   1 ApplicationFrameHost
    285      12    10780    15520    25,03   2280   0 audiodg
    141       7     3180     4060     1,97   4840   1 CompPkgSrv
    273      14     7280    19756     8,81  12584   1 conhost
    101       7     6324     5576     0,11   5452   1 conhost
   2146      19   182128    18680   344,67   6016   1 ctfmon
    800      26     3664     5532             864   1 csrss
    760      23     1984     2592             756   0 csrss
     84       5      828     1260           10176   0 dasHost
    219      10     6100     8412     0,20  11484   1 dirmngr
    124       7     1696     2000     0,11   9832   1 dllhost
    584      17     5136     8724     4,42   9348   1 dllhost
   2018      65   467712   148508            1292   1 dwm
    115       7     1776     4076            4504   0 esif_uf
   3197     116   157232   121248 2 458,48   2864   1 explorer
     39       9     5652    11276            1232   1 fontdrvhost
     32       6     1632     2144               8   0 fontdrvhost
    171      10     1604     1136            8224   0 GoogleCrashHandler
    154       9     1664      588            8232   0 GoogleCrashHandler64
    176       8     5548     6144     1,89   6964   1 gpg-agent
      0       0       60        8               0   0 Idle
    172      10     2016     3224            2240   0 igfxCUIService
   9113      33    15996    15236    22,81   5736   1 igfxEM
    167       8     1836     4372            4148   0 IntelCpHDCPSvc
    411      19     5036     8040     2,94   9512   1 jusched
    683      28    14292    38580    21,70   8000   1 LockApp
   1624      28     9128    15772             948   0 lsass
      0       0     1964   466804            2908   0 Memory Compression
   1005      50    50744     6996     3,34   1636   1 Microsoft.Photos
```

8.b,

```
PS C:\Users\arvaidora> Get-Process | Sort-Object name -Descending

Handles  NPM(K)    PM(K)      WS(K)     CPU(s)     Id  SI ProcessName
-------  ------    -----      -----     ------     --  -- -----------
    980      50    27452       2476       2,19   4832   1 YourPhone
    334      15     7268       9260               696   0 WUDFHost
   1227      58    57544     135656      35,50   8728   1 WINWORD
    277      12     3108       5704              1176   1 winlogon
    165      11     1372       1900               856   0 wininit
    151       9     1388       2036              4208   0 WindscribeService
    760      65   242624     101940     236,22  13024   1 vlc
    126       9     2272       4892       3,05   1808   1 UserOOBEBroker
    884      42    23424      55084      25,75  12648   1 TOTALCMD64
    585      25    20224      14588      77,05  11056   1 TextInputHost
    317      32     9364      11888      18,11   5828   1 taskhostw
    472      24    10060      14220       2,53   7172   1 taskhostw
    750      25    22008      17944   7 147,83   4688   1 SystemSettingsBroker
    853      40    24148       2128       0,66   2596   1 SystemSettings
   5276       0      192         32                  4   0 System
    139      14     1848       3488              3264   0 svchost
    305      15     4132       5796              3256   0 svchost
    119       8     1320       1996              3296   0 svchost
    376      19     3040       5708              3272   0 svchost
    376      24     5084      11024              3228   0 svchost
    326      10     7812      12596              2964   0 svchost
    171      11     2248       5668              2876   0 svchost
    254      16     2996       5580              3208   0 svchost
    494      15     5036      10076              3092   0 svchost
    459      33    11236      11404              3576   0 svchost
```

9.

```
Windows PowerShell                                          —    □    ×
PS C:\Users\arvaidora> Get-Service | Where-Object { $_.name -eq "w32time" }

Status   Name               DisplayName
------   ----               -----------
Running  W32Time            Windows Time


PS C:\Users\arvaidora>
```

10.

```
Windows PowerShell                                                      —    □    ×

PS C:\Users\arvaidora> Get-Service | Where-Object { $_.name -like "wi*" }

Status   Name                DisplayName
------   ----                -----------
Stopped  WiaRpc              Állókép-beviteli események
Running  WinDefend           Microsoft Defender víruskereső szol...
Running  WindscribeService   WindscribeService
Running  WinHttpAutoProx...  WinHTTP automatikus webproxy-kereső...
Running  Winmgmt             Windows Management Instrumentation
Stopped  WinRM               Rendszerfelügyeleti webszolgáltatások
Stopped  wisvc               Windows Insider szolgáltatás


PS C:\Users\arvaidora>
```

11.

```
Windows PowerShell                                                      —    □    ×

PS C:\Users\arvaidora> Get-Service | Group-Object status

Count Name                     Group
----- ----                     -----
  152 Stopped                  {AarSvc_5ae4a, AJRouter, ALG, AppIDSvc...}
  115 Running                  {Appinfo, AppXSvc, AudioEndpointBuilder, Audiosrv...}


PS C:\Users\arvaidora>
```
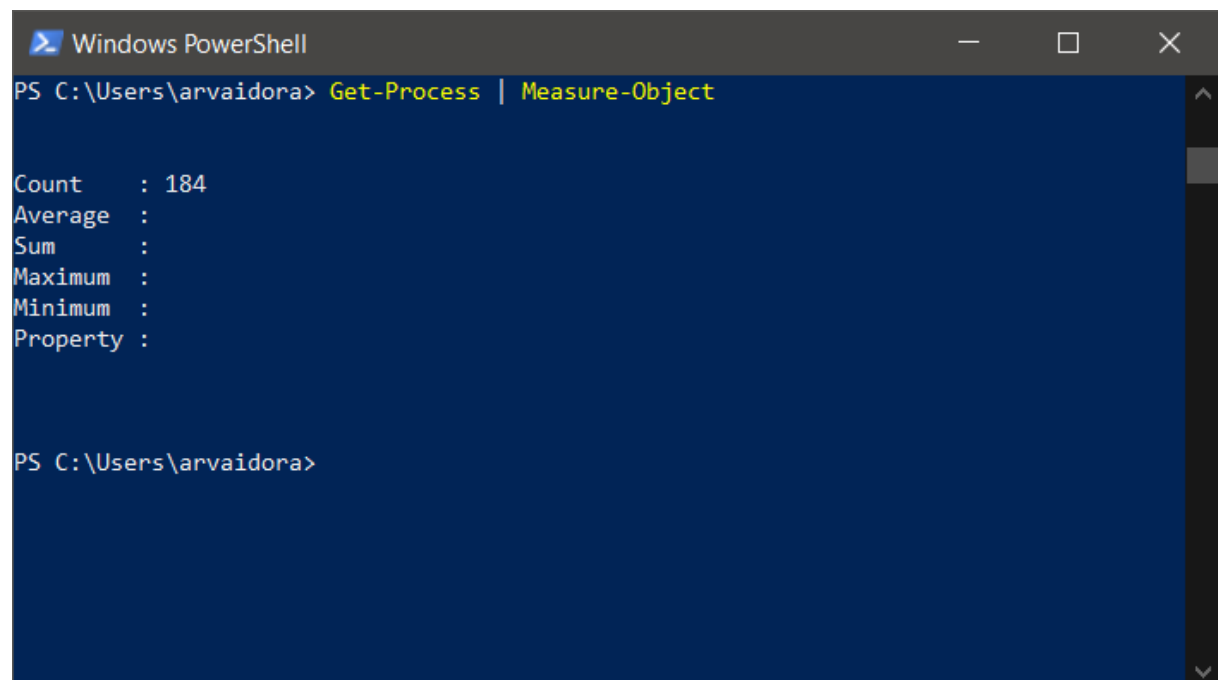
```
PS C:\Users\arvaidora> Get-Process | ForEach-Object { $_.id*2 }
20824
4560
9680
10904
25168
12032
1512
1728
20352
22968
18696
19664
2584
9008
5728
16
2464
16448
16464
13928
0
4480
11472
```

12.

```
Windows PowerShell                                        —    □    ×
PS C:\Users\arvaidora> Get-Process | Measure-Object


Count    : 184
Average  :
Sum      :
Maximum  :
Minimum  :
Property :



PS C:\Users\arvaidora>
```

13.

```
Windows PowerShell                                              —    □    ✕

PS C:\Users\arvaidora> Get-Process | Measure-Object -Property id -Maximum -Minimum -Average -Sum


Count    : 186
Average  : 5666
Sum      : 1053876
Maximum  : 14116
Minimum  : 0
Property : Id



PS C:\Users\arvaidora>
```

14.

```
Windows PowerShell                              —    □    ✕

PS C:\Users\arvaidora> (Get-Service).count
267
PS C:\Users\arvaidora>
```

15.

```
Windows PowerShell                                              —    □    ✕

PS C:\Users\arvaidora> $x = 5
PS C:\Users\arvaidora> $x | Get-Member


   TypeName: System.Int32

Name        MemberType Definition
----        ---------- ----------
CompareTo   Method     int CompareTo(System.Object value), int CompareTo(int value), int IC...
Equals      Method     bool Equals(System.Object obj), bool Equals(int obj), bool IEquatabl...
GetHashCode Method     int GetHashCode()
GetType     Method     type GetType()
GetTypeCode Method     System.TypeCode GetTypeCode(), System.TypeCode IConvertible.GetTypeC...
ToBoolean   Method     bool IConvertible.ToBoolean(System.IFormatProvider provider)
ToByte      Method     byte IConvertible.ToByte(System.IFormatProvider provider)
ToChar      Method     char IConvertible.ToChar(System.IFormatProvider provider)
ToDateTime  Method     datetime IConvertible.ToDateTime(System.IFormatProvider provider)
ToDecimal   Method     decimal IConvertible.ToDecimal(System.IFormatProvider provider)
ToDouble    Method     double IConvertible.ToDouble(System.IFormatProvider provider)
ToInt16     Method     int16 IConvertible.ToInt16(System.IFormatProvider provider)
ToInt32     Method     int IConvertible.ToInt32(System.IFormatProvider provider)
ToInt64     Method     long IConvertible.ToInt64(System.IFormatProvider provider)
ToSByte     Method     sbyte IConvertible.ToSByte(System.IFormatProvider provider)
ToSingle    Method     float IConvertible.ToSingle(System.IFormatProvider provider)
ToString    Method     string ToString(), string ToString(string format), string ToString(S...
ToType      Method     System.Object IConvertible.ToType(type conversionType, System.IForma...
ToUInt16    Method     uint16 IConvertible.ToUInt16(System.IFormatProvider provider)
ToUInt32    Method     uint32 IConvertible.ToUInt32(System.IFormatProvider provider)
```

15.

```
Windows PowerShell
PS C:\Users\arvaidora> $szoveg = "Miskolc"
PS C:\Users\arvaidora> "$szoveg-on élek."
Miskolc-on élek.
PS C:\Users\arvaidora>
```
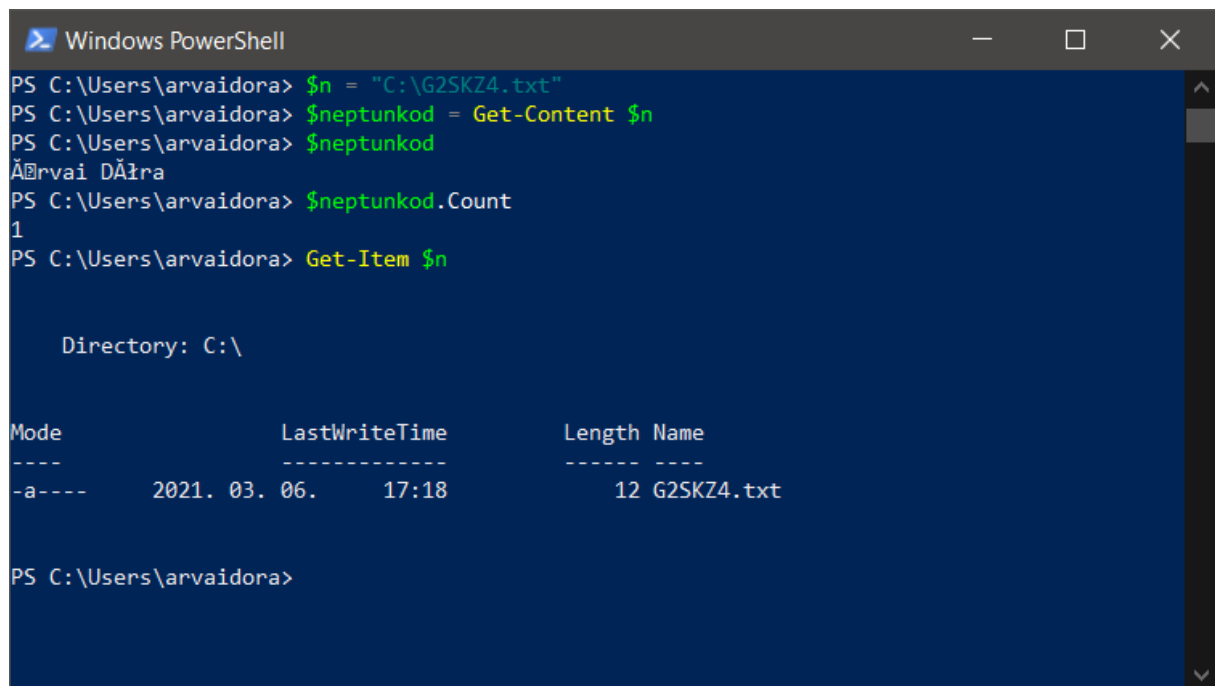
16.

```
Windows PowerShell
PS C:\Users\arvaidora> $szoveg.Length
7
PS C:\Users\arvaidora> $szoveg.ToUpper()
MISKOLC
PS C:\Users\arvaidora> $szoveg.Replace("kolc", "ka")
Miska
PS C:\Users\arvaidora> $szoveg.Split("s")
Mi
kolc
PS C:\Users\arvaidora>
```

17.

```
Get-Service| Out-GridView
Filter
Add criteria
Status    Name                          DisplayName
Stopped   AarSvc_5ae4a                  Agent Activation Runtime_5ae4a
Stopped   AJRouter                      AllJoyn-útválasztó szolgáltatás
Stopped   ALG                           Alkalmazási réteg átjárószolgáltatása
Stopped   AppIDSvc                      Alkalmazásidentitás
Running   Appinfo                       Alkalmazásinformációk
Stopped   AppMgmt                       Alkalmazásvezérlés
Stopped   AppReadiness                  Alkalmazás-előkészítő
Stopped   AppVClient                    Microsoft App-V Client
Stopped   AppXSvc                       AppX Deployment Service (AppXSVC)
Stopped   AssignedAccessManagerSvc      AssignedAccessManager szolgáltatás
Running   AudioEndpointBuilder          Windows-hangvégpontépítő
Running   Audiosrv                      Windows audió
Stopped   autotimesvc                   Mobilhálózati idő
Stopped   AxInstSV                      ActiveX Telepítő (AxInstSV)
Stopped   BcastDVRUserService_5ae4a     Játékvideó-rögzítő és Közvetítés felhasználói szolgáltatás_5ae4a
Stopped   BDESVC                        BitLocker meghajtótitkosítási szolgáltatás
Running   BFE                           Alap szűrőprogram
Stopped   BITS                          Háttérben futó intelligens átviteli szolgáltatás
Stopped   BluetoothUserService_5ae4a    Felhasználói Bluetooth-támogatási szolgáltatás_5ae4a
Running   BrokerInfrastructure          Háttérfeladatok infrastruktúra-szolgáltatása
Running   BTAGService                   Bluetooth-hangvégjáró szolgáltatás
Running   BthAvctpSvc                   AVCTP-szolgáltatás
Running   bthserv                       Bluetooth-támogatási szolgáltatás
```

18.

```
Windows PowerShell                                                    —    □    ×

PS C:\Users\arvaidora> $n = "C:\G2SKZ4.txt"
PS C:\Users\arvaidora> $neptunkod = Get-Content $n
PS C:\Users\arvaidora> $neptunkod
Ăℤrvai DĂłra
PS C:\Users\arvaidora> $neptunkod.Count
1
PS C:\Users\arvaidora> Get-Item $n


    Directory: C:\


Mode                LastWriteTime         Length Name
----                -------------         ------ ----
-a----       2021. 03. 06.     17:18         12 G2SKZ4.txt



PS C:\Users\arvaidora>
```