ANNEX A · POWERSHELL: FIRST CONTACT

Name: _____ **Date:** _____

WARM-UP **While `win11` starts. On paper, alone. This is Bash, from Wednesday.**

A. Send the **errors** of `find / -name "*.log"` to the file `err.txt`: _____

B. What is in `names.txt` after `sort names.txt > names.txt`? _____

C. One pipeline: how many lines of `staff.csv` contain `design`? _____

D. What do `echo "$HOME"` and `echo '$HOME'` print? _____

In `win11`: Start → type `terminal` → Enter. Three lifelines: `Get-Command` (which commands exist?), `Get-Help` (how do I use it?), `Get-Member` (what is this object?). Tab completes names.

TASK 1 **Find your way**

1.1 Run `$PSVersionTable.PSVersion`. Major and Minor: _____

1.2 Run `Get-Command -Noun Process`. Write two of the cmdlets: _____

Which one would stop a process? _____

1.3 Run `Get-Alias ls`. Which cmdlet really runs when you type `ls`? _____

1.4 Run `Get-Help Get-ChildItem`. Copy the first line under SYNTAX:

_____

DONE WHEN you can say, without looking, what `Get-Command`, `Get-Help` and `Get-Alias` are for.

TASK 2 **Everything is an object**

2.1 Run `Get-Date`, then `Get-Date | Get-Member -MemberType Property`. Write three properties:

_____

2.2 Run `(Get-Date).DayOfWeek`. Output: _____

2.3 Run `(Get-Date).AddDays(100)`. What date is it 100 days from today? _____

2.4 Run `"tramuntana".Length` and `"tramuntana".ToUpper()`. Outputs: _____

DONE WHEN 2.2 prints only the name of a day, with no date around it.

TASK 3 **A pipeline of objects**

3.1 Run it. Which process uses the most memory?

```
Get-Process | Sort-Object WorkingSet64 -Descending | Select-Object -First 3 ProcessName, Id, WorkingSet64
```

3.2 How many processes use more than 100 MB? Result: _____

```
Get-Process | Where-Object WorkingSet64 -gt 100MB | Measure-Object
```

3.3 Services are objects too. How many are running? Result: _____

```
Get-Service | Where-Object Status -eq Running | Measure-Object
```

3.4 Write a pipeline that lists the files in `C:\Windows` bigger than 1 MB, biggest first, showing only `Name` and `Length`. Start with `Get-ChildItem C:\Windows |` and use what you saw in 3.1 and 3.2.

_____

_____

DONE WHEN 3.4 prints a table with two columns, `Name` and `Length`, and the biggest file is on the first line.

TASK 4 **Challenge: only the lifelines**

Find a cmdlet whose noun is `Volume`. Run it. How much free space is left on `C:`? Cmdlet: _____ Free: _____

EXIT TICKET **Alone, terminal closed. Tick one answer.**

1. Which name follows the pattern of PowerShell cmdlets?

- ☐ a) `process --list`
- ☐ b) `ListProcesses`
- ☐ c) `Get-Process`
- ☐ d) `ps_get`

2. What travels through a PowerShell pipeline?

- ☐ a) lines of text
- ☐ b) objects with properties
- ☐ c) files on disk
- ☐ d) screenshots of the output

3. You have an object and do not know which properties it has. You pipe it to:

- ☐ a) `Get-Member`
- ☐ b) `Get-Help`
- ☐ c) `Get-Command`
- ☐ d) `Get-Alias`

4. In Windows PowerShell, `ls` is:

- ☐ a) the Linux `ls` program
- ☐ b) a file in `C:\Windows`
- ☐ c) an error
- ☐ d) an alias of `Get-ChildItem`

5. Which cmdlet keeps only the objects that pass a condition?

- ☐ a) `Sort-Object`
- ☐ b) `Where-Object`
- ☐ c) `Select-Object`
- ☐ d) `Measure-Object`