

Solutions for OS

Shell

1.

2.

Type the following command

- On GNU/Linux and Mac: `date`
- On windows:

3.

Type the following command

- On GNU/Linux and Mac: `echo $PATH`
- On windows: `echo %PATH%`

4.

The various directories where the operating system (more specifically the shell) will look for program are listed.

5.

Type the following command

- On GNU/Linux and Mac: `PATH=12`
- On windows: `set PATH=12`

6.

12 is printed out since the value of the PATH variable now has been set to 12.

7.

- On GNU/Linux and Mac: `echo $NOTEXIST`
- On windows: `echo %NOTEXIST%`

8.

Most likely this variable has no value assigned so nothing is printed.

9. Type the following command

- On GNU/Linux and Mac: `NOTEXIST=12`
- On windows: `set NOTEXIST=12`

10.

42 is printed out since the value of the NOTEXIST variable now has been set to 42.

Network

1.

Using (IP) network cards, blue tooth, serial cable, pigeons, leds...

Most common way to communicate is to use network cards. The internet is loads of computers connected via network cards.

2.

Let's assume you want to send an email to one of the authors of these exercises, Henrik Sandklef. His address is `sandklef@chalmers.se`. There are two parts in this email address separated by the @ sign. The second part `chalmers.se` is the domain name, typically an organisation or company name. The first part `sandklef` is the recipient at the specified organisation.

So when you're sending the email the email is received by a computer at chalmers.se and by that computer is stored in sandklef's INBOX.

3.

Your computer opens a network connection to the computer at `www.gu.se` and gets the information from that.

4.

The address `www.gu.se` is translated using Domain Names Servers to an IP address (4 numbers separated with three dots).