

Using a USB graphics tablet to write on PowerPoint or a pdf

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Background

Typical maths support requirements:

- **Responding ad-hoc to students' questions in a workshop**
- **Making up an example on the spot to explain something**
- **Drawing a diagram to aid explanation**
- **Being prepared for a range of topics a student might want to discuss**

Responding flexibly to individual students' needs is key …

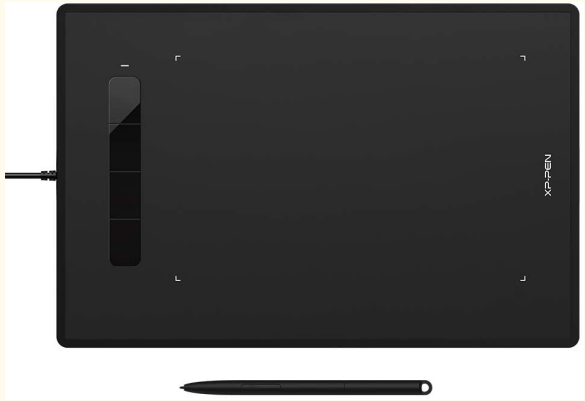
… but more difficult to achieve online.

The technology

USB Wacom tablet originally supplied for Open University tutorials in 2008:



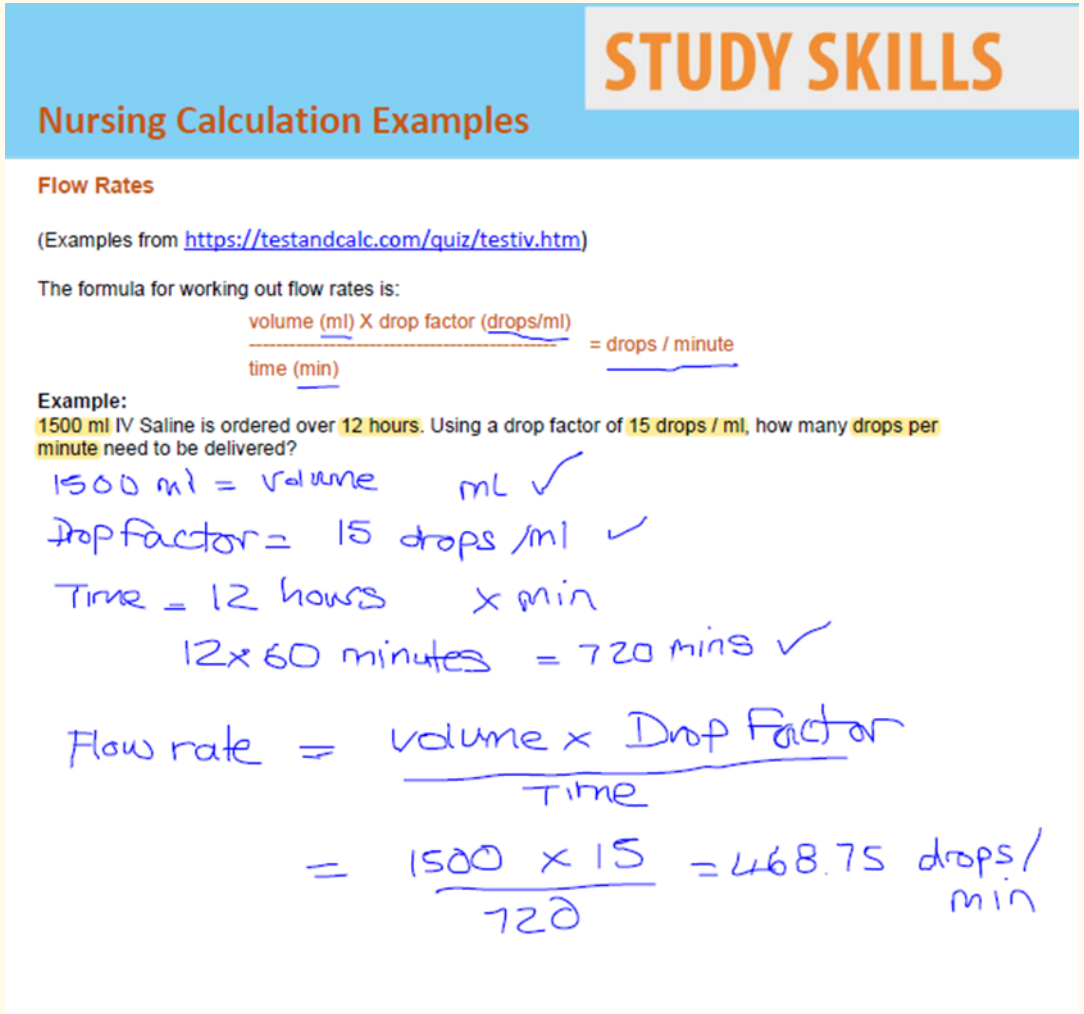
USB XP-Pen G960 purchased for £39.99 at the beginning of lockdown:



Both operate as an additional input device just as a keyboard or mouse.

Writing on pdf

1. Create a Word document with examples and blank pages
2. Save as pdf
3. Screen share the pdf
4. Use the comment features of your pdf software to annotate



STUDY SKILLS

Nursing Calculation Examples

Flow Rates

(Examples from https://testandcalc.com/quiz/testiv.htm)

The formula for working out flow rates is:

$$\frac{\text{volume (ml) X drop factor (drops/ml)}}{\text{time (min)}} = \text{drops / minute}$$

Example:

1500 ml IV Saline is ordered over 12 hours. Using a drop factor of 15 drops / ml, how many drops per minute need to be delivered?

1500 ml = volume ml ✓

Drop factor = 15 drops /ml ✓

Time = 12 hours x min

12 x 60 minutes = 720 mins ✓

$$\text{Flow rate} = \frac{\text{volume} \times \text{Drop Factor}}{\text{Time}}$$

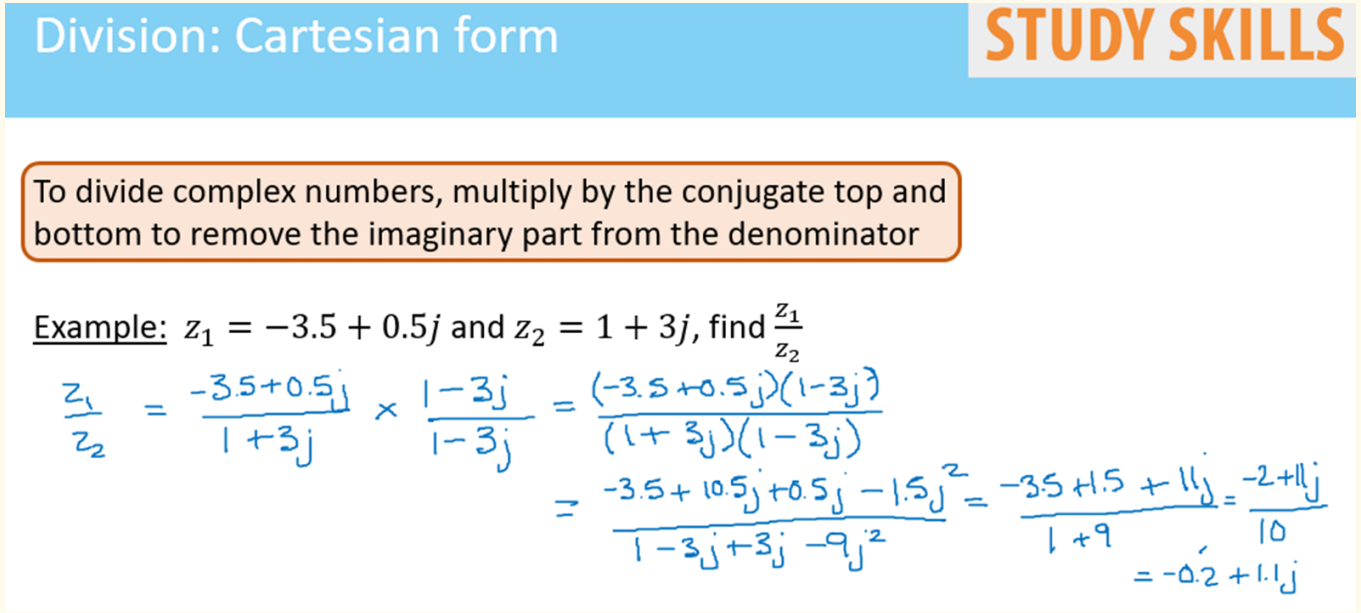
$$= \frac{1500 \times 15}{720} = 468.75 \text{ drops/min}$$

Writing on PowerPoint slides

1. Create the slides, with space for writing on
2. Share the Slide Show in full screen mode (need a second screen in Teams)
3. Use the PowerPoint tools to write on the slides



4. ‘Keep’ the annotations when exiting Slide Show mode
5. Delete unused slides then save in an appropriate format



Linear equation examples

(a) $x + 20 = 57$

(b) $x - 9 = 4$

(c) $8x = 26$

(d) $\frac{x}{7} = 6$

Summary

Writing on pdf files:

- easy to screen share
- allows a range of annotations as well as handwriting e.g. highlighter, typed text
- less flexible for adding and removing pages unless you have pro software

Writing on PowerPoint files:

- better for creating a ‘bank’ of examples to draw on during a session
- PowerPoint Mix makes it easy to record videos with handwritten examples
- need to use the Slide Show in full screen mode