Maths E.G.

A freely available computer aided assessment tool to provide maths examples galore!

The brainchild of

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Maths E.G.

- *Drug calculations follow standard types*

- *Students "want" to do lots (and lots) of practice examples*

- *Students benefit from instant feedback (not just tick or cross)*

- *Students appreciate access to resource at any time*

- *All this points to a computer-based resource*

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The challenge is to create questions of standard types with randomised parameters that are realistic

Sensible
Patient is prescribed furosemide 100 mg. On hand is a suspension of 20 mg in 5 mL. What volume do you give?

Silly
Patient is prescribed furosemide 834 mg. On hand is a suspension of 47 mg in 19 mL. What volume do you give?

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Search questions

Maths E.G.

Maths E.G. is delivered to you free of charge under a Creative Commons licence. You may use it as often as you like for any educational purpose. Each question in the database will generate thousands of examples, each with fully-worked solutions which you are invited to study. You can set up the fonts sizes and colours by clicking top-right of the screen. Most of the questions are at A-level standard, but some are at university level, so don't panic if some make no sense to you (yet)!

We have found that the most effective way of using this resource is to try the questions with pen in hand, calculator at the ready, friends by your side etc, but with a serious intent to get the question right! That way, if you do go wrong, you can compare your attempt with our solution and identify where you went wrong. Educationalists call this 'formative assessment'. It is possible you may still be stuck, or simply disagree with us! Try clicking the **Related material** button for useful links or, even better, ask your teacher. It is quite possible that a question is wrong, so if your teacher agrees you have found an error, ask him/her to please take a screen shot and send it to us (teachers - you should give a prize in this case e.g. a chocolate bar!).

We have added Google's translator facility to the questions. Whilst this is not perfect, it may help you if you are studying in another language, but we advise you not use it if you are studying in English. We do not take responsibility for any inaccuracies in translation.
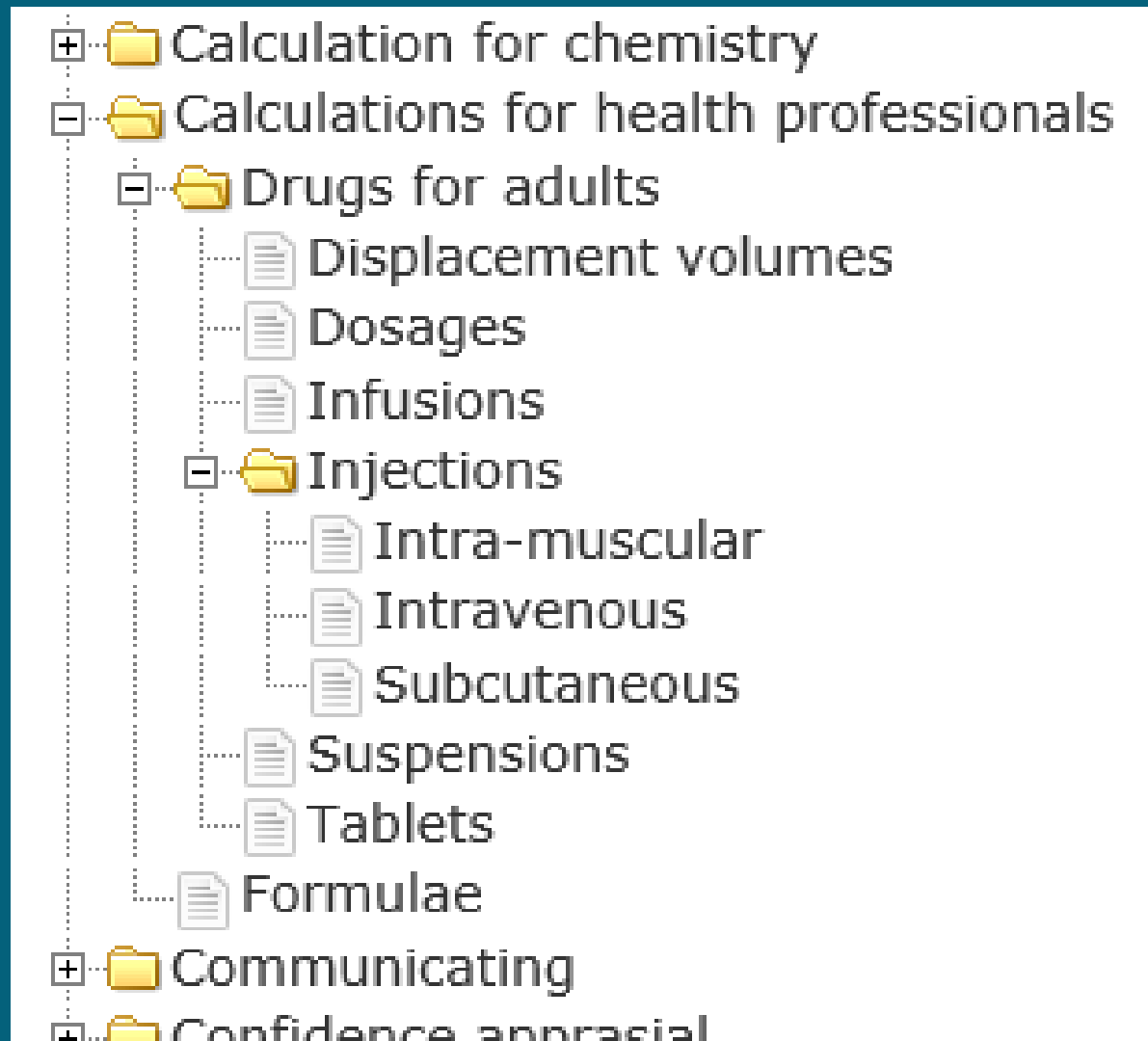
Good luck!

Martin Greenhow, Abdulrahman Kamavi and contributing undergraduate and postgraduate students at the Department of Mathematical Sciences, Brunel University, UK
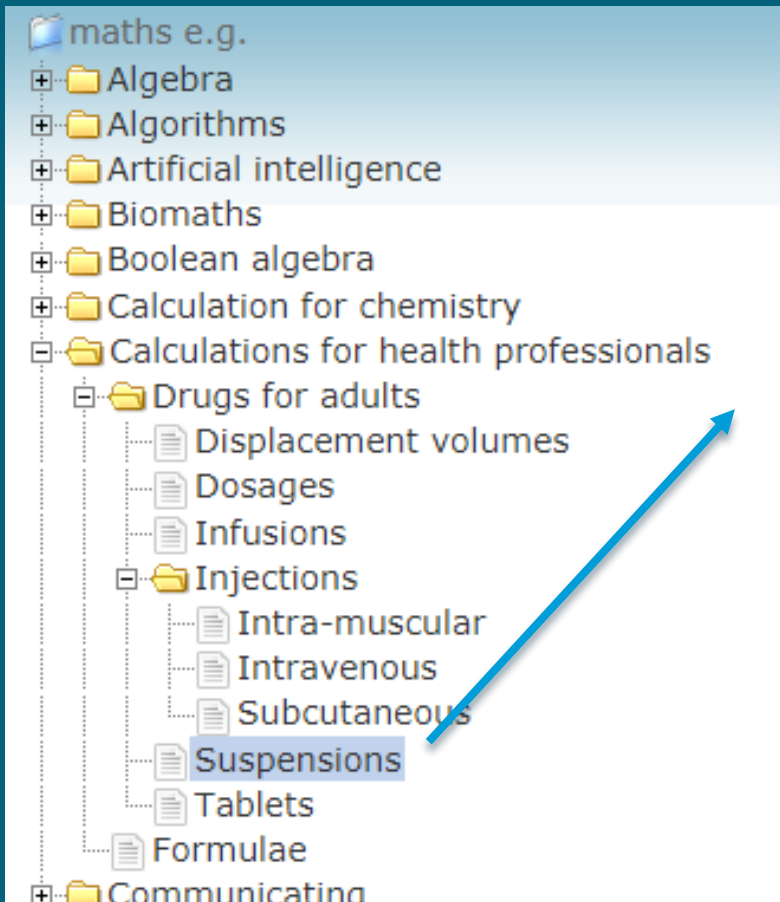
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UNIVERSITY
LONDON

Calculations for Nurses tree structure (about 100 question 'spaces' with randoms)

Selecting a topic brings up a list of standard questions types

G Select Language | ▼

Print this screen | Colours & Fonts | mathse.g.

Calculations for health professionals\Drugs for adults\Tablets

Patient Thomas requires 200mg of the anticonvulsant sodium valporate 4 times a day.

You have 100 mg tablets.

How many tablets will you need per day?

Tablets required per day = [ ]

Input your answer as a whole number.

Show Answer

Return to topics   New question

Calculations for health professionals\Drugs for adults\Tablets

Patient Katie requires 200mg of the anticonvulsant sodium valporate 4 times a day.

You have 100 mg tablets.

How many tablets will you need per day?

Tablets required per day = `4`

Input your answer as a whole number.

Show Answer

~~~~~~Your result~~~~~~

d) Your answer 4, was wrong. It should have been 8

Look at your solution carefully to see where you have gone wrong.

Solution

Firstly note that

- the drug is administered 4 times a day i.e. every 6 hours, and
- all units are in milligrams, mg.

So the 6-hourly dose is: $200 \div 100 = 2$ tablets. This happens 4 times a day, so the number of tablets required per day is $2 \times 4 = 8$ tablets.

Return to topics | New question

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A Teacher' Interface (log-in required, simple and free to register) lets you create a test based on randomly-generated questions taken from the topic areas you choose.

The test is saved in your online account, and you get a URL for the test to give your students.

Full instructions are given (*it's a bit tricky first time …*)

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Martin and colleagues would welcome any feedback on MathsEG, and suggestions for additional topics to include.

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