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Welcome, dear Ladies and Gentlemen

Should you be asking yourself what language I am using here then I dare to say that it is intended to be English.

Today I'd like to present you a very special slide rule produced by Faber Castell, probably in the early fifties. It is a slide rule which is intended to indicate the pregnancy duration and therefore also the expected date of delivery.

No other comparable slide rule was known until my specimen was offered on eBay in May 2016. No doubt you can easily imagine that the bid battle was cruel and – in some sense even bloody – but finally I won… admittedly not without some injury inflicted.

It is obvious that I – and perhaps also you – are too old to use this valuable instrument for our own sake, but perhaps you can gain some precious information for your relatives in the next, younger generation.

Let us have a look at this slide rule. It is a wooden piece painted with an egg color. You see two month-scales, each month with the adequate numbers of days. The two scales are set against each other by a gap of 6 months. The scale above begins with January, the scale below with July. On the tongue you find three scales indicating one year in three modes: months, weeks and days.

On the back side of the tongue a row of icons shows the development of the uterus.

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Luckily, the seller of this rule preserved an instruction leaflet, a simple handout containing a few instructions on how to use the slide rule.

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So how can we now calculate the provided date of delivery? Well, you move the number one **XX** of the tongue scale to the date of the last menstruation. By saying «you» – I hope it is clear, who is being meant.

Then the cursor has to be set on the corresponding date. Now you can read the month, the week and the day of your pregnancy. **XX** The short thick black horizontal line indicates the beginning of the perceived movement of the foetus.

XX The end of the pregnancy is marked by a Gauss curve which is something really special on the slide rule. The source of the image used for it is to be found in the research of one of the inventors of this slide rule. Please allow me to explain this later on.

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The average length of a pregnancy is 282 days. This is known as the 'Naegele'rule. Franz Naegele was a gynaecologist from Heidelberg who lived from 1778 until 1851. The above result can be gained by applying the following formula: 7 days minus 3 months

plus 1 year.

That gives me the opportunity to introduce the inventors. Only 4% of children decide to arrive on time. You see the very small digit engraved on the top of the Gauss curve. Who calculated this percentage?

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It was Hans Hosemann, one of the two persons whose names are stamped on the back side of the slide rule. The other name is Heinrich Martius.

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Here you see first a few biographical information about Heinrich Martius.

Born in 1885.
After his studies he worked from 1913 onwards as a gyanecologist for the university hospital in Bonn.
During the 1st World War he was an army doctor
After the war he finished his habilitation
From 1926 until 1954 he was the head (director) of the delivery ward at the university hospital in Göttingen and was appointed as a professor for obstetrics.
After his retirement he wrote many books about obstetrics.

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His most important book was the «Lehrbuch der Gynäkologie» which was revised several times, also by his son Gerhard Martius (1924–1998).

Before I began with my research about the Faber Castell 51/88 I had been looking for descendants of these two persons. I was only successful in the case of Martius.
His grandson Joachim is still alive, and my first guess was, that it was his father Gerhard who is meant by the name on the back side of the rule. But Joachim, who is by the way an excellent photographer, couldn't give me any hint about the slide rule. And after a couple of weeks I noticed that Martius had never been in Göttingen and also that he was – at the time at which the slide rule was produced – too young.

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Concerning Hans Hosemann wikipedia.de doesn't reveal much about his life.
Born in 1913
No information about his life are available until the Second World War.
During the war he worked in an institute named «Maschinelles Berichtwesen» (i.e. 'Machine Reporting'). Here he developed some kind of a card system, a prototype of a computer.

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After the war he published two books about statistical calculation concerning the timing of deliveries

On the cover it is mentioned that Hosemann was in Göttingen, that means that he worked together with Martius.

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He died in 1994.

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Please let me now return to the Gauss curve. Martius himself quoted the research of Hosemann concerning the spread of delivery dates.
They calculated about 10'000 delivery dates and used the accumulated data to design the curve which was first showed in the book «Lehrbuch der Gynäkologie». You see that the same figure was transferred, without any change, on the slide rule. The same figure was published in the following editions. Prof. Kleine was very busy and controlled the editions until 1988.

Can we say anything about the date of issue? Definitely not. First I asked the company Faber Castell but the responsible person wrote me, that they only know, that the slide rule was probably produced between 1950 and 1954. It is very strange that Martius concealed in his principal book that a special slide rule exists, which he had invented himself.

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Instead he recommends other instruments in his book, such as for instance two circular slide rules, one called «Gravidameter nach Dr. A. Gengenbach», and the other being named «Gravidarium nach Dr. Escher und Kätsch». In the editions supervised by the son Gerhard the list of instruments remains without change.

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The slide rules for obstetrics continued to be produced until today. Here is one from 1985, the «Krüger», which is published on the website «rechnerlexikon.de».

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And surprisingly midwives still use circular slide rules. A Swiss company still distributes this circular slide rule with many supplement scales among nurses.

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And if you search for further examples on google, you get many pictures of slides rules still in use.

The seller of the Faber Castell 51/88 told me that she got the item from her uncle who dealt with Hosemann and Martius. I assume that this slide rule was a kind of prototype and only available for friends and peers of Hosemann and Martius. And after a trial phase the users reject the project. I guess the slide rule was too bulky.

Perhaps – and with this I'd like to end my speech – the most important question is not, when the child will be born, but who the father is. Often the answer is surprising if not shocking. **XX**