

Mathematics Self-Efficacy Scale for Future Teachers (MaSE-T)

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In this questionnaire you are asked to indicate the extent to which you, personally, are confident to solve the following mathematical problems.

You should NOT solve the problems! You should only estimate, whether you are CONFIDENT to solve the problem.

Please mark every row with only one cross. Please don't miss a row!

I feel confident to...	I am not at all confident				I am totally confident
	1	2	3	4	5
... solve the system of equations with $x + y = -7$ and $x \cdot y = -30$.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... calculate the capacity of a water barrel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... determine the solution of fraction equations like $\frac{b-k}{b} = c$ (c and k are constants and natural numbers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... estimate whether a 2.5 meter long board can be transported in a van.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... reason why three is always a factor of the sum of three successive natural numbers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... solve equations like $\frac{x}{x+6} + \frac{x}{x+1} + \frac{x}{2x} = 1$ and $\frac{t}{\frac{2}{3}+6} + \frac{t}{\frac{2}{3}+1} = 1$ for x and for t respectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... find an argument why 491 is a prime number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... solve the following task: A room is to be painted. Adam, Betty, and Cedric will need 6 hours less than Adam on his own for painting the room. They also will need one hour less than Betty by herself and half as long as Cedric. How long do Adam and Betty need for painting the room together?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... reason that a natural number can be divided by '4' if and only if the number built up by the last two digits of this number can be divided by '4'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... proof that $\sqrt{2}$ cannot be represented by a fraction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... solve kinds of equations like $k \cdot p^x = c$ for x as unknown (k, p, and c are constant real numbers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I feel confident to...	<i>I am not at all confident</i>				<i>I am totally confident</i>
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... give the number of people sitting in a room by knowing that originally the number of males and females were identical and further after 8 females left the room the number of males is twice as much as females.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... explain, how five numbers between 0.1 and 9.9 have to be chosen to get an average of 6.3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... determine, whether there is a number of persons to divide 313 sweets equally and every person gets more than 2 sweets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... identify the extremum of the function $f(x) = -x^2 + bx$.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please check again if you have marked every row with only one cross and that you have not missed a row!

Thank you for your participation! 😊