How long will it take to complete the lockers

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Students will work collaboratively to formulate their own question for the Locker Problem and find a solution to that question. They will make a creative output to present their process and the solution.

The following is a solution to the "Lockers" question. First a relatively elegant and concise solution is given, followed by an explanation of some alternative ways of arriving at the conclusion.

That same pattern continues for all 100 students. Here"s the question: "Which lockers are left open after all 100 students have walked the row of lockers?"

I need to figure out which lockers are left open in a row of 25, 100, and a row of 500 lockers. I have been trying to figure this out for 4 days and my parents can not figure it out either.

Your goal is to find out which lockers will be touched as all 20 students take their turn touching lockers. 1. Which locker numbers does the 3rd student touch? 2. Which locker numbers does the 5th student ...

Tiny HintsBigger HintsA Little More of A Hint ...A Full AnswerFurther QuestionsAnother 1997 question was given a complete answer: Doctor Anthony started with a correction, assuming this is meant to be the usual problem: There"s the answer we"d stopped short of in the answers so far: Perfect-square-numbered lockers will be left open. Is that easy to see? Only when you see it the right way. He uses examples to make it as easy a...See more on themathdoctors .b_imgcap_altitle p strong,.b_imgcap_altitle .b_factrow strong{color:#767676}#b_results .b_imgcap_altitle{line-height:22px}.b_imgcap_altitle{display:flex;flex-direction:row-reverse;gap:var(--mai-smtc-padding-card-default)}.b_imgcap_altitle .b_imgcap_img{flex-shrink:0;display:flex;flex-direction:column}.b_imgcap_altitle .b_imgcap_main{min-width:0;flex:1}.b_imgcap_altitle .b_imgcap_img>div,.b_imgcap_altitle .b_imgcap_img a{display:flex}.b_imgcap_altitle .b_imgcap_img img{border-radius:var(--mai-smtc-corner-card-default)}.b_hList img{display:block}.b_imagePair ner

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Identifying which students touch which lockers is a little less of a brute-force approach and would likely have gotten you to the solution a little more quickly.

We see now that the extended locker problem is easily solved for any student or locker set that is determined completely by a signature-containing set A; that is, for sets of students or lockers of the ...

oc ers according to the followin r 1. Student 1 opens every locker. 2. is k th a udent 3 is ill and had to skip her turn? What if she took a seco d t if stude any students we like down the corridor. If, when we are ...

Can you figure out which lockers will be left open after 100 students take turns changing the state of the locker doors? The Ted-Ed video below places the riddle in the context of members of a family vying ...

How many lockers are closed immediately after the fourth student has walked along the corridor? Explain your reasoning.

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