



Covid-19 Special

- comprehend and understand -

Containment

Task from 7 April 2020

Source: www.pixabay.com



Does it help if you stay home from school?

Not having school is something that most students find quite okay, at least for a while. However, not being able to meet up with friends is a big sacrifice for many pupils. This raises the question: What is the point of closing schools, swimming pools, playgrounds, training sessions and contact closures?

Infobox

If you get infected with Covid-19, most people feel it about two to 14 days after they are infected. For most people, it takes five to six days before they notice it¹. However, once you are infected, you can infect other people before you feel any of the disease on you. So because not only the obviously sick can infect others, but also those who are still feeling healthy, everyone must avoid contact with others so that as few people as possible are infected. Like this, schoolchildren can no longer infect their seat neighbours and adults can no longer infect their colleagues at work.



Pictures: ICSE

Comprehend and understand

Let's assume that as of 16 March 2020, everyone only comes into contact with only half as many people and each infected person therefore only infects half as many people. Instead of the number of infected people doubling every three days, it will only double every six days.

Attention: This slowing down of the infection can only be noticed about six days after school closing¹, because at the time of closing there are people who are already newly infected but do not know anything about it yet! Look at your chessboard with the grains of rice from the prior task: The doubling from the first to the second and from the second to the third field is therefore for 3 days each. The doubling for each additional square stands for six days.

- 1) How many people are now ill after 18 days?
- 2) Compare your calculated value with the value reported by the Robert Koch Institute after 18 days.

Your calculated value does not exactly match the value from the Robert Koch Institute. But much better than the value you calculated yesterday! And it is much lower than the value you calculated yesterday. The assumption that every infected person infects fewer people is therefore correct. Fortunately! So far, all seriously ill people can be treated.

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¹<https://www.mdr.de/wissen/corona-inkubationszeit-ansteckung-symptome-ausbruch-100.html>