

MATHCOUNTS[®] Problem of the Week Archive

School Makeover – September 14, 2020

Problems

Lou has been contracted to tile classroom floors as part of the renovation of a local school. During the first five days on the job, Lou completed tiling 4, 5, 6, 4 and 8 classrooms, respectively. What is the average number of classrooms Lou tiled each day during that five-day period? Express your answer as a decimal to the nearest tenth.

Electricians Chris and Dave have been contracted to wire every classroom in the same school. Each of the classrooms requires exactly the same electrical work. Working alone, Chris can complete the wiring for one classroom in 20 hours, and it takes Dave 15 hours to do the same job by himself. After 120 hours of work, they had completed wiring $\frac{1}{2}$ of the classrooms in the school. How many classrooms are in the school?

In the school's main office there are four smaller offices that each require the exact same wiring. Chris and Dave can each wire an office in exactly half the time it took them each to wire a classroom. Working together, how long will it take Chris and Dave to complete wiring the four smaller offices? Express your answer as a decimal to the nearest hundredth.