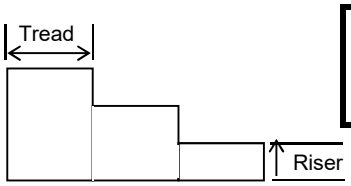
17821

Minute

Second

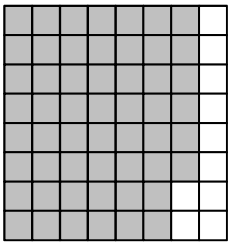
1. The top three steps of a stairway are shown. The stairway has 82 steps with 82 risers that are each 6 cm high. The 82 treads are each 10 cm wide. If all the stairs were shown in the figure, what would be the area of the figure?



2. A train has 25 seats of which 18 are broken. The conductor needs to fill out a form that identifies the broken seats.

If she randomly identifes the 18 broken seats, what is the probability that she identified all the correct seats? Express your answer in scientific notation to 3 digit accuracy.

3. Xavier and Sean are playing the Shade Game. Two standard dice are rolled, and the sum of the numbers shown is the number of blank squares that must now be shaded in.



It is Sean's turn, and the grid is shown here. What is the probability that Sean will win on this turn by rolling the exact sum needed to shade the rest of the grid? Express your answer as a common fraction.

4. What is the single discount that is equivalent to the two successive discounts of 17% off followed by 22% off the discounted_price? Answer to the nearest hundredth of a percent.

5. A nursery employee wishes to plant 6 Golden Delicious apple trees, 3 Bartlett pear trees and 2 Harcot apricot trees in one row. How many distinct arrangements are possible? Express your answer in scientific notation to 3 digit accuracy. Show the setup in the space below.