

# Determining constant $k$ *Average Washroom Time*

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*Proof.* Given  $t_{FL} = 152.5, t_{FH} = 180.6, t_{ML} = 83.6, t_{MH} = 112.5$ . [1] So,

$$\begin{aligned} t_{avg} &= \frac{t_{FL} + t_{FH} + t_{ML} + t_{MH}}{4} \\ &= \frac{529.2}{4} \\ &= 132.3 \text{ seconds} \end{aligned}$$

Conversion of  $t_{avg}$  to minutes yields  $\tau_{avg} = 2.205$  minutes

□

## References

- [1] Sandra K Rawls. *Restroom usage in selected public buildings and facilities: A comparison of females and males*. PhD thesis, Virginia Polytechnic Institute and State University, 1988.