

2024

Pigeon Strike!

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Original Publication Citation

Adam, J. (2024). Pigeon strike! *Physics Teacher*, 62(7), 622. <https://doi.org/10.1119/5.0198844>

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Pigeon strike!



The imprint was made on the window by a sizeable bird—I'm presuming a pigeon—but there was no trace of the bird when I went outside to check. Hopefully, it was just stunned and managed to fly away after a visit to pigeon urgent care. 😊

Question 1: Estimate (i) the momentum and (ii) the kinetic energy of the bird prior to hitting the window.

Question 2: Estimate (i) the force with which it hit the window, (ii) the pressure on the window during impact, and (iii) the wingspan of the bird, given that the wingtip-to-wingtip horizontal distance on the window was about 18 in. (~46 cm).

Look for the answers online at tpt.aapt.org under "Browse," at the very end of the current issue.

Fermi Questions are brief questions with answers and back-of-the-envelope estimation techniques. To submit ideas, please email John Adam (jadam@odu.edu).