

Planet Holloway **websheet 2.1**

Physics Chapter 2

You may print this out and write on it or work on your own paper.

Show all work.

1. Mary rollerblades 6 km in 4 hours. What is her speed in m/s?
2. Kengi rock climbs at 2.4 m/s. How long does it take him to climb 75 m?
3. A rock dropped off of a building accelerates at 10 m/s^2 (actually 9.8, but we will use 10). If the rock falls for 3.5 seconds, how far does it fall?
4. How fast is the rock in the problem above going after the 3.5 second fall if it started from rest? ($v_0 = 0 \text{ m/s}$)
5. A car decelerates from 30 m/s to 10 m/s in 4 seconds. What is the deceleration of the car?
6. For the car above, how far does it travel in the 4 seconds it slows down?

Answers:

1. 0.42 m/s
2. 31.25 s
3. 61.25 m
4. 35 m/s
5. -5 m/s/s
6. 80 m