

Practice Problems: Acceleration

W3
EC
Levi
Hayes

Directions: Complete the table below.

	Final velocity v_f	Initial velocity v_i	$v_f - v_i$ Δv	Time (t)	$a = \frac{\Delta v}{t}$
1	26 m/s	20 m/s	6 m/s	6 s	1 m/s
2	0 km/s	12 km/s	12 km/s	4 s	3 km/s
3	8 m/s	3 m/s	5 m/s	2 s	2½ m/s
4	46.4 m/s	27.3 m/s	19.1 m/s	11 s	1.7 m/s
5	5 m/s	15 m/s	10 m/s	5 s	2 m/s

Complete the following word problems. Show your work.

6. A paperboy rode his bike at 3 m/s. After being chased by a dog for 8 seconds, he was traveling 6 m/s. What is his acceleration?

.375 m/s was his acceleration

3 1/8
46.14
27.3
19.1

7. A pumpkin is dropped, and after 5 seconds its velocity is 47 m/s. What is its acceleration?

9.4 m/s was the acceleration

10 25 m/s x 5

6. A soccer player is running at 6 m/s. He then stumbles over an opponent's foot, falls and rolls to a stop. This took 4 seconds. What was his acceleration?

1.5 was his acceleration

7. A skateboarder fell doing a jump. She got up and after 5 seconds returned to a velocity of 5 m/s. What was her acceleration?

1 m/s was her acceleration