Practice Problems: Acceleration

Directions: Complete the table below.

Used calculator for help

	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	6 s	1
2	0 km/s	12 km/s	-12	4 s	-3
3	8 m/s	3 m/s	5	2 s	2.5
4	46.4 m/s	27.3 m/s	19.1	11 s	1.736
5	5 m/s	15 m/s	-10	5 s	-2

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 6m/s. What is his acceleration?

$6-3=\frac{|3|}{8}=0.375$

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

$47-0=\frac{|47|}{5}$ 9.4

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?

$0-6=\frac{6}{4}$ -1.5

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?

$5-0=\frac{5}{5}=1$

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