

ACCELERATION

GRADE 6 PHYSICS

Part 1. Find the acceleration for each object using the information in the table.

Remember: Acceleration = $\frac{V_{\text{final}} - V_{\text{initial}}}{\text{time}}$

	Initial velocity	Final velocity	Time	Acceleration
1.	0 m/s	60 m/s	10 s	m/s ²
2.	10 km/s	55 km/s	15 s	km/s ²
3.	0 m/s	40 m/s	4 s	m/s ²
4.	60 m/s	40 m/s	10 s	m/s ²
5.	20 m/s	5 m/s	2 s	m/s ²



Part 2. Read and answer the questions

6. A motorbike accelerates from rest (0 speed) up to a speed of 30 m/s in 6 seconds.

_____ m/s²

7. A biker rides down a hill from 22 m/s to a speed of 37 m/s. The acceleration takes him 2 seconds. Calculate the acceleration.

_____ m/s²

8. A rocket leaves Earth to bring people to Mars. It accelerates upward from rest to a speed of 12 km/s in 8 seconds. Calculate the acceleration.

_____ km/s²