

**Formative assessment:**  
**Students in Class**

Acceleration Worksheet

Equations:

**Acceleration = Final velocity – Initial velocity**

1. A roller coaster car rapidly picks up speed as it rolls down a slope. As it starts down the slope, its **speed is 4 m/s**. But **3 seconds later**, at the bottom of the slope, its speed is **22 m/s**.

**What is its average acceleration?**

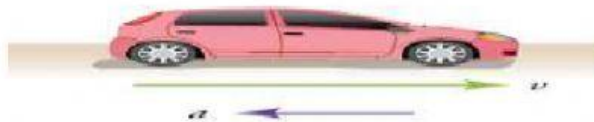
Acceleration =  $\frac{\boxed{\phantom{00}} - \boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \boxed{\phantom{00}} \text{ m/s}^2$

2. Choose the positive acceleration:

(a)



(b)



(c)



(d)

