

1 Math Practice**Calculating Acceleration**

1. $a = \frac{10 \text{ m/s} - 5 \text{ m/s}}{5 \text{ s}}$

2. $a = \frac{27 \text{ m/s} - 21 \text{ m/s}}{6 \text{ s}}$

3. $a = \frac{45 \text{ m/s} - 10 \text{ m/s}}{10 \text{ s}}$

4. $a = \frac{15 \text{ m/s} - 40 \text{ m/s}}{5 \text{ s}}$

5. $a = \frac{0 \text{ m/s} - 30 \text{ m/s}}{15 \text{ s}}$

6. $a = \frac{25 \text{ m/s} - 50 \text{ m/s}}{30 \text{ s} - 10 \text{ s}}$

Use the formula for acceleration to find each answer.

- An object initially at rest accelerates forward in a straight line. It takes the object 7 s to reach a velocity of 42 m/s. What is the acceleration of the object?

- A radio-controlled airplane has an initial velocity of 38 m/s. Five seconds later it reaches a velocity of 51 m/s. What is the acceleration of the plane?

- A runner starts moving and reaches a speed of 4 m/s in 2 seconds. What is his acceleration?

- A ball is moving at 6 m/s. After 4 seconds, it is moving at 1 m/s. What is the acceleration of the ball?

- A zebra running at 20 m/s slows and comes to a stop in 10 seconds. What is the zebra's acceleration?
