Physical Science Blizzard Bag #3 (2015-2016)

List Newton’s Three Laws of Motion

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the following chart by finding the acceleration or deceleration for each item.

|  |  |  |  |
| --- | --- | --- | --- |
| Beginning Speed | Ending Speed | Elapsed Time | Acceleration |
| 40 km/hr | 50 km/hr | 5 sec |  |
| 20 km/hr | 109 km/hr | 4 sec |  |
| 30 mm/sec | 22 mm/sec | 0.2 sec |  |
| 5 cm/sec | 10 sm/sec | 0.5 sec |  |
| 25 cm/sec | 10 cm/sec | 0.5 sec |  |

Calculate the average speed for each of the items in the chart below.

|  |  |  |
| --- | --- | --- |
| Distance Traveled | Time | Average Speed |
| 30 miles | 5 hours |  |
| 100 yards | 13 seconds |  |
| 10 centimeters | 5 seconds |  |
| 380 kilometers | 2 hours |  |
| 3,825 feet | 30 minutes |  |