The equation to use is expressed as  =  \*  and when we plug in our values  \* →  \*  → 2 . Now we have solved for acceleration, we need to look back at what the question was asking for. Since this is really  = 2, we would need to solve for afinal by multiplying both sides by ainitial . This would mean that the final acceleration would be twice the initial acceleration. We can also apply Newton’s Second Law to the connection between weight which is the force of gravity and the mass of an object which is how heavy it is. The acceleration of gravity is 9.8 m/s/s and is exclusive to planet Earth, where it is different on every single planet in the universe. Weight is expressed as  and this is to convey the resistance an object has to acceleration. If an object on Earth has a mass of 100 kg, it would have a weight of 980 N which is the amount of resistance it would have against a push. One last concept in mechanical physics in which Newton’s Second Law can be applied is in the form of terminal velocity. All objects, no matter their mass, will always accelerate up until a point and hang at that constant speed until otherwise changed (N1). This can even be expressed in the form of a limit as t approaches infinity, v(t) is a function of their acceleration and will eventually reach a certain number which is the limit itself.