$p = mv$	$J = Ft$	$Ft = mv$	$F = ma$	$a = v_f - v_i/t$
A What is the momentum of a 50.0 kg boulder going 15.5 m/s?	How long does a force of -125 N need to be applied for an 82 kg bike rider and bike to come to rest if their original velocity is 8.25 m/s? **F**	**K** What is the acceleration of a rocket if 200 N are applied to its 5.5 kg?	**P** What mass can be accelerated at 15.8 m/s/s with a force of 12,000N?	What is the acceleration of a toy car that goes from 2.5 m/s to 5.8 m/s in 6.2s? **U**
A force of 19 N is applied to a book on a frictionless surface. What is the impulse? **B**	**G** What is the mass of a bullet with a velocity of 450 m/s if it has 1200 kgm/s of momentum?	How fast is a ball leaving pitcher's glove moving if he applies 45 N to the .358 kg ball over a time of .59s? **L**	**Q** What is the acceleration of a SUV that goes from rest to 30.0 m/s in 6.8s?	What force is needed to move a 6.5 kg toddler in a stroller from rest to 3.5 m/s in 2.9s? **V**
C What mass can be accelerated at 5.5 m/s/s if the force is 330 N?	What force is needed to produce an impulse of 2.58 Ns over a time of 13.2s? **H**	What is the velocity of a car with a mass of 950 kg if the momentum is 13450 kgm/s? **M**	What is the mass of a school bus if it can accelerate from rest to 15.5 m/s over 8.25 s with 7,500N of force? **R**	**W** What force is needed to accelerate a 2.58 kg rabbit at .356 m/s/s?
D A force of 3.58 N is applied to a 12.5 kg crate of oranges for 2.5s. What is the final velocity?	What is the acceleration of a car if a net force of 9000 N is applied to the 1250 kg mass? **I**	**N** How long does it take for a 3.58N force to produce an impulse of 4.52 Ns?	What is the momentum of a flower pot just before it hits the sidewalk at 19.5 m/s if it has a mass of 3.25 kg? **S**	What force is needed to accelerate a 1200 kg car from rest in 4.56s if the impulse is 4568 Ns? **X**
What is the final velocity of a boulder rolling down a hill if it starts at rest and has an acceleration of 4.5 m/s/s for 3.5s? **E**	**J** What is the final velocity of a bike rider if they start at rest and accelerate at 2.52 m/s/s for 5.6 s?	How long will it take a car to go from rest to 12.5 m/s with an acceleration of 6.75 m/s/s? **O**	**T** A force of 119 N is applied to a boulder for 9.61s. What is the impulse?	What is the velocity of a .258 kg toy motorboat if it has 3.15 kgm/s of momentum? **Y**