## F=ma WS

1. A force of 15 Newtons is applied to an object with a mass of 5 kilograms. What will be the object's final velocity after 10 seconds??
2. What net force is necessary to accelerate a 300 kg object at $3 \mathrm{~m} / \mathrm{s}^{2}$ ???
3. A block of ice with a mass of 10 kg is resting on a frozen pond. How much force will it take to accelerate the ice at $0.25 \mathrm{~m} / \mathrm{sec}^{2}$.

4, What is the mass of a 198 N weakling?
5. How much does a 4 kg cat weigh on earth?
6. A 1000 kg car accelerates from 0 to $30 \mathrm{~m} / \mathrm{s}$ in 10 seconds. What unbalanced force must the engine of the car produce???
7. A 100 N force is applied to a 500 kg crate resting on frictionless wheels. What will be its acceleration?
8. A 10 kg block of ice slides across the floor. If the force of friction on the ice is 4 N , what will be the acceleration of the block?
b) How long will it take to come to rest if it was initially sliding at $8 \mathrm{~m} / \mathrm{sec}$ ?

