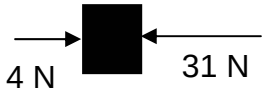
# F=MA WORKSHEET # 2

1. How much force is required to accelerate a 50 kg mass at 4 $m/s^2$?
2. What is the acceleration of a 7 kg mass being pulled by a 56 N force?
3. Given a force of 75 N and an acceleration of 3 $m/s^2$, what is the mass?
4. What is the acceleration of a 7 kg mass pushed by a 3.5 N force?
5. Given a force of 100 N and an acceleration of 5 $m/s^2$, what is the mass?
6. What is the acceleration of a 24 kg mass pushed by an 8 N force?
7. How much force is required to accelerate a 50 kg mass at 2 $m/s^2$?
8. What is the mass of a block accelerating at 2 $m/s^2$ and pushed by a 9 N force?
9. A 10 N force is applied to a 2 kg mass, how fast will it be going in 10 sec?
10. A 64 N force is applied to an 8 kg mass, how fast will it be going in 5 sec?
11. What force is necessary to accelerate a 5 kg mass to 10 m/s in 5 sec?
12. José has a mass of 70 kg, what is his weight?
13. On the surface of the earth, how much does a 10 kg mass weigh?
14. On the surface of the earth a box weighs 49 N. What is its mass?
15. The acceleration due to gravity on the moon is 1.6 $m/sec^2$. What does a 10 kg mass weigh on the moon?
16. On the moon, Bob weighs 160 N while on earth Fred weighs 882 N. Who has the greater mass?
17. A 4 kg mass sits on a table that has 5 N of friction. If Maria applies a 25 N force to the mass, how fast will it accelerate?
18. How much force is required to accelerate an 8 kg mass at 5 $m/s^2$ if there is 14 N of friction?
19. Find the acceleration of the 3 kg block in the following diagram.




20. What will be the acceleration of the 20 kg block below?