

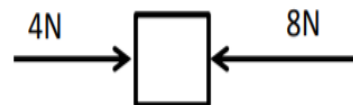
## Force equals Mass times Acceleration

$$F=ma$$

$$(\quad) = (\quad)(\quad)$$

1. How much force is required to accelerate a 2 kg mass at 3 m/s<sup>2</sup>?
2. What is the mass of an object that requires 100 N of force in order to accelerate it at 10 m/s<sup>2</sup>?
3. What is the acceleration of a 10 kg mass pushed by a 5 N force?
4. Calculate the mass of an object given a force of 88 N and an acceleration of 4 m/s<sup>2</sup>?
5. How much force is required to accelerate a 12 kg mass at 5 m/s<sup>2</sup>?
6. Given a force of 100 N and an acceleration of 5 m/s<sup>2</sup>. What is the mass?
7. How much force is required to accelerate a 50 kg mass at 2 m/s<sup>2</sup>?
8. What is the acceleration of an 18 kg mass pushed by a 9 N force?

9. Use the diagram to the right to find the acceleration of a 2 kg block.



10. The block shown in the image below accelerates at an astonishing 21.5 m/s<sup>2</sup>. What is the mass of the block?

