

# QUIZIZZ

## Newton's Second Law

15 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

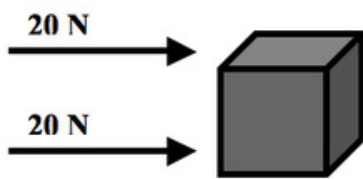
1.



What happens when unbalanced forces act on an object at rest?

- ☐ a) the object remains at rest
- ☐ b) the object begins moving in an unpredictable direction
- ☐ c) the object begins moving in the direction of the net force
- ☐ d) the object begins moving opposite to the direction of net force

2.



What is the net force?

- ☐ a) 40 N left
- ☐ b) 0 N Balanced
- ☐ c) 400 N right
- ☐ d) 40 N right

3. 20 N is the

- ☐ a) mass
- ☐ b) weight
- ☐ c) force
- ☐ d) acceleration

4.  $45 \text{ m/s}^2$  is the...

- ☐ a) Mass
- ☐ b) Force
- ☐ c) Acceleration
- ☐ d) weight

5. What is a Balanced Force? Two objects where...

- ☐ a) They both have equal force
- ☐ b) One has more force than the other
- ☐ c) Both have no force
- ☐ d) One has more gravity than the other

6. Football A has a greater mass than football B. Which football will have greater acceleration when both are thrown with the same force in the same direction?

☐ a) Football A ☐ b) Football B  
☐ c) They will have the same acceleration ☐ d) Mass has no effect on acceleration

7. Will it take more force to push an empty shopping cart or a shopping cart that is full?



☐ a) The empty shopping cart ☐ b) The full shopping cart  
☐ c) They will take the same amount of force

8. How much force is needed to accelerate a 2 kg physics book to an acceleration of 6 m/s/s?

☐ a) 36 N ☐ b) 12 N  
☐ c) 3 N ☐ d) 0.33 N

9. When force is 20 N, mass is 5 kg, what is acceleration?

☐ a) 25 m/s/s ☐ b) 5 m/s/s  
☐ c) 100 m/s/s ☐ d) 4 m/s/s

10. What is the acceleration of an object traveling at a constant velocity?

☐ a) 10 m/s<sup>2</sup> ☐ b) 0 m/s<sup>2</sup>  
☐ c) 250 m/s<sup>2</sup> ☐ d) 20 m/s<sup>2</sup>

11. Why would one ball accelerate more than the other when pushed with the same amount of force?

☐ a) Different weights ☐ b) Different forces  
☐ c) Different masses ☐ d) Different sizes

12. Jenny applies a 60 N force to a 20 Kg cart, what is the acceleration of the cart if friction can be neglected?

- ☐ a) 1200 m/s<sup>2</sup> ☐ b) 0.33 m/s<sup>2</sup>  
☐ c) 20 m/s<sup>2</sup> ☐ d) 3 m/s<sup>2</sup>

13. An object accelerates 5 m/s<sup>2</sup> when a force of 20 newtons is applied to it. What is the mass of the object?

- ☐ a) 4 Kg ☐ b) 20 Kg  
☐ c) 0.5 Kg ☐ d) 2 Kg

14. An object with a mass of 6.0 kg accelerates 4.0 m/s<sup>2</sup> when an unknown force is applied to it. What is the amount of the force?

- ☐ a) 240 N ☐ b) 24 N  
☐ c) 2.4 N ☐ d) 0.24 N

15.



According to Newton's second Law, which would take more force to slow down?

- ☐ a) The silver car ☐ b) The green car  
☐ c) They would both take the same force

**Answer Key**

1. c  
2. d  
3. c  
4. c

5. a  
6. b  
7. b  
8. b

9. d  
10. b  
11. c  
12. d

13. a  
14. b  
15. a