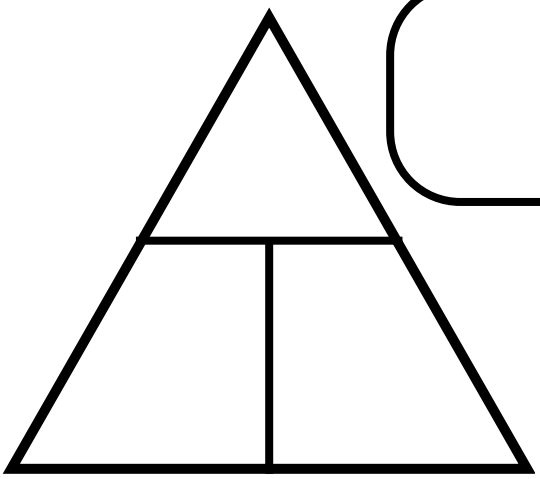
Name: **Date:**

NEWTON'S 2ND LAW



F

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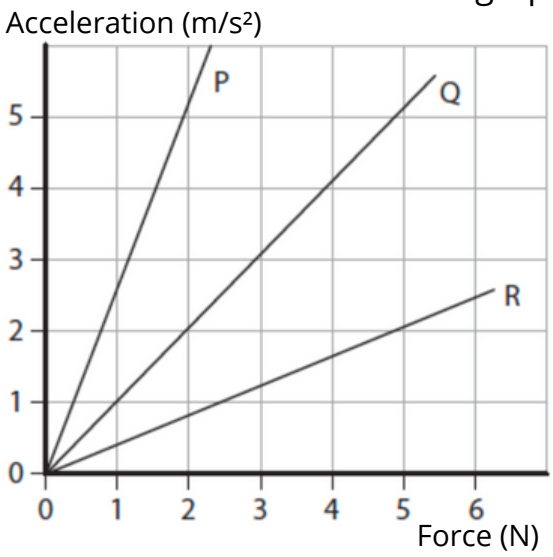
a

a. If an object with a mass of 10 kg experiences an acceleration of 5 m/s², what is the force acting on it?

b. If a force of 50 N is applied to an object, and it accelerates at 2 m/s², what is the mass of the object?

c. If a force of 100 N is applied to an object with a mass of 20 kg, what is the acceleration of the object?

The graph shows the acceleration and force applied for 3 trolleys.



a. Calculate the mass of trolley Q.

b. Describe how the graph shows that trolley R has the greatest mass.

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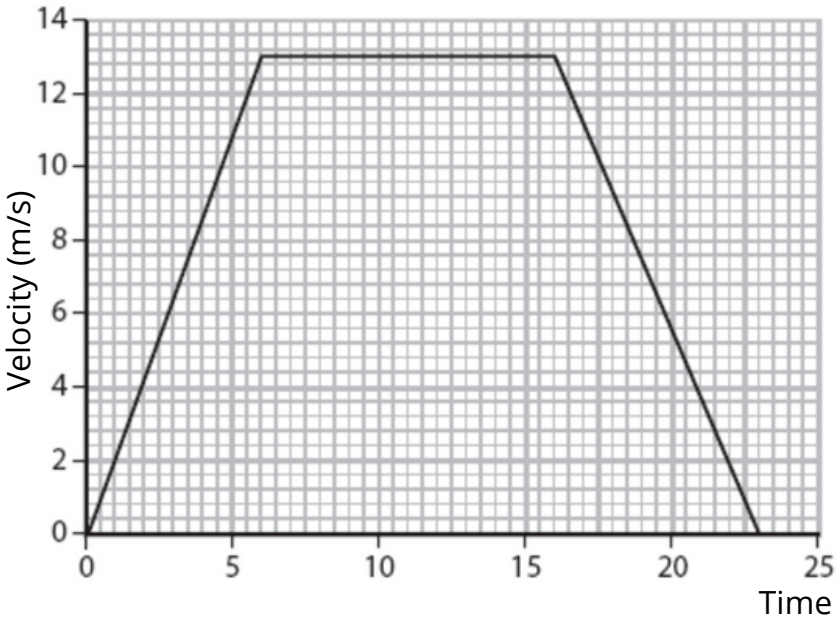
2ND LAW PRACTICE

Problem	What are the equations you need?	Identify the variables.	Plug known variables into equations.	Final Answer. Including units.
An object with a mass of 15 kg experiences an acceleration of 8 m/s². Calculate the force acting on it				
A force of 200 N is applied to an object, it accelerates at 10 m/s². Find the mass of the object?				
An object with a mass of 5 kg experiences a force of 30 N. What is the acceleration of the object?				
An object with a mass of 25 kg has an acceleration of 4 m/s², what force is acting on it?				
A force of 150 N is applied to an object, causing it to accelerate at 5 m/s². What is the mass of the object?				



Using force acting on the car for the first 6s was 5.5 kN.
Calculate the mass of the car.

(6)