Warm Up

1. What distance is covered by a ball that is thrown downward at 5.00 m/s and achieves a final velocity of 85.0 m/s?
2. What is the mass of an object that had 250. N of force applied to it to accelerate it from 4.00 m/s to 16.0 m/s in a time of 4.00 sec?

Targets

- I can explain how to find the equilibrant.

Forces and Motion in 2D

- Equilibrium happens when the net force on an object is zero.
- If two forces are exerted on an object and its net force is not zero, how could you make it zero?

- A force that puts an object in equilibrium is called the equilibrant.
- The equilibrant will be the opposite of the overall net force.

- To find the equilibrant, the net force on the x-axis and the y-axis needs to be found.
- Once this is found, the hypotenuse can be found to determine the overall force.

- To find the angle, the inverse tangent can be used and adding or subtracting 180º.
- This finds the force and angle needed to balance out the net force the other forces are applying.

Summary

Assignment