**Consolidation**

This worksheet provides practice in finding the area under a curve using integration.

# Question 1

The graph below shows the curve .

Calculate the area under the curve.

A graph plotting a curve to calculate the area underneath.
The x-axis goes from 0 to 4. It is labelled: length (m).
The y-axis goes from 0 to 4. It is labelled: height (m).
The graph consists of a curved line graph in purple, starting at point 0, 0. It follows an inverted u-shape with the highest point at 2, 4, returning to 4, 0.
The area underneath the curved is shaded in light purple to represent the area. 

# Question 2

The graph below shows the curve .

Calculate the area between the curve and the x-axis.

A graph plotting a curve to calculate the area between the curve and the x-axis.
The x-axis goes from -1 to 8. It is labelled: length (m).
The y-axis goes from -6 to 3. It is labelled: height (m).
The graph consists of a curved line graph in purple, starting at point -0.5, 3. It follows a u-shape with the lowest point at 3, -6, returning to 6, 0.
The area above the curved is shaded in light purple to represent the area. 

# Question 3

The graph below shows the curve .

Calculate the area under the curve.

A graph plotting a curve to calculate the area underneath.
The x-axis goes from 0 to 20. It is labelled: length (m).
The y-axis goes from 0 to 100. It is labelled: height (m).
The graph consists of a curved line graph in purple, starting at point 0, 0. It follows an inverted u-shape with the highest point at 10, 100, returning to 20, 0. It has 7 points plotted on the curve.