

## 13.6) Areas under the $x$ -axis

## Worked example

Find the area of the finite region bounded by the curve with equation  $y = x(x - 5)$  and the  $x$ -axis

## Your turn

Find the area of the finite region bounded by the curve with equation  $y = x(x - 3)$  and the  $x$ -axis

$$\frac{9}{2}$$

## Worked example

Find the total area bound between the curve  $y = x(x - 2)(x - 4)$  and the  $x$ -axis.

## Your turn

Find the total area bound between the curve  $y = x(x - 1)(x - 2)$  and the  $x$ -axis.

$$\frac{1}{2}$$

## Worked example

Find the total area bound between the curve  $y = x^3 + 2x^2 - 15x$  and the  $x$ -axis.

## Your turn

Find the total area bound between the curve  $y = x^3 + 2x^2 - 8x$  and the  $x$ -axis.

$$\frac{148}{3}$$