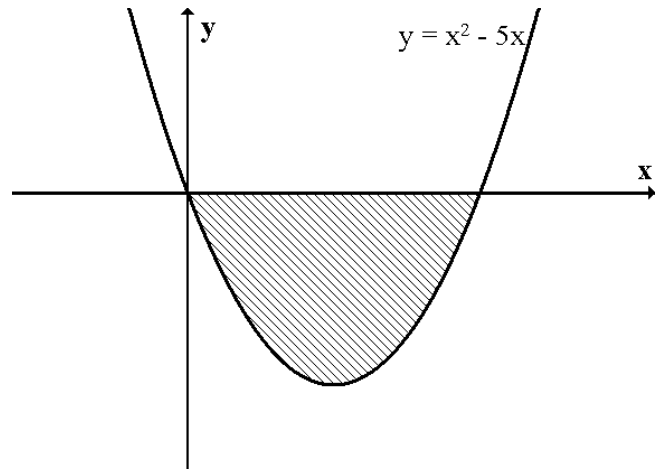


The Area under a Curve

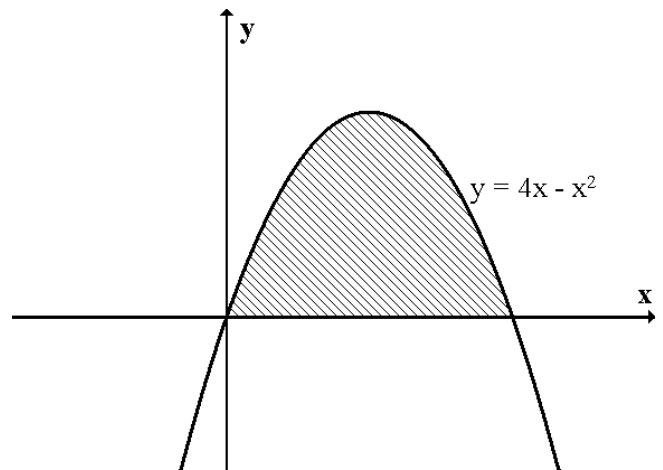
1. The diagram opposite shows the graph of $y = x^2 - 5x$.

Calculate the shaded area.



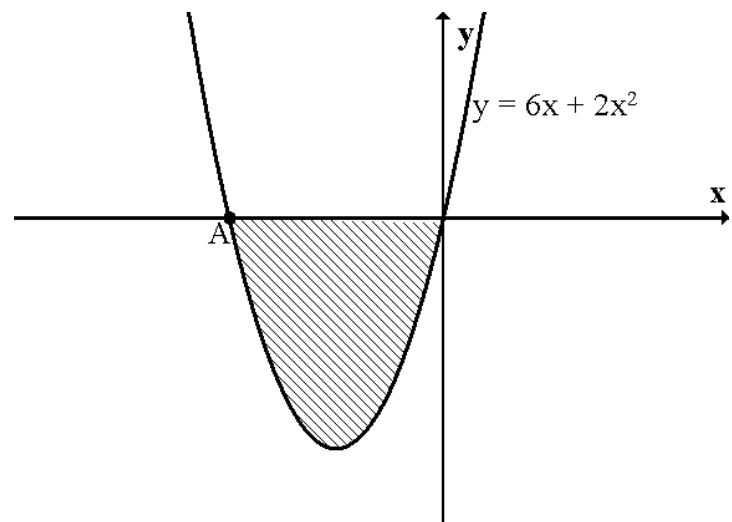
2. The diagram shows the graph of $y = 4x - x^2$.

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



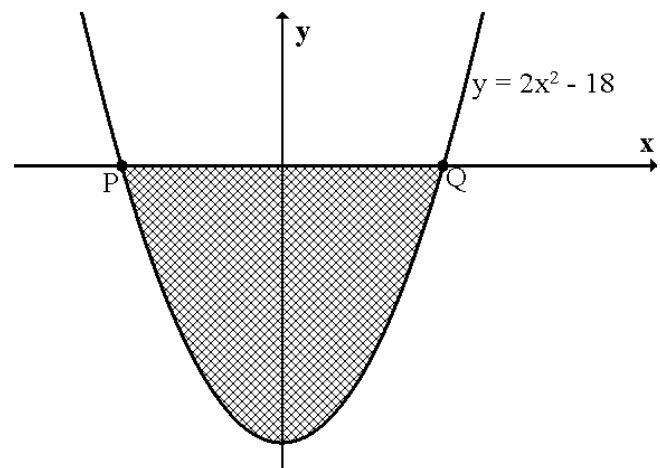
3. The diagram shows part of the graph of $y = 6x + 2x^2$.

- (a) Find the coordinates of A.
(b) Calculate the shaded area.



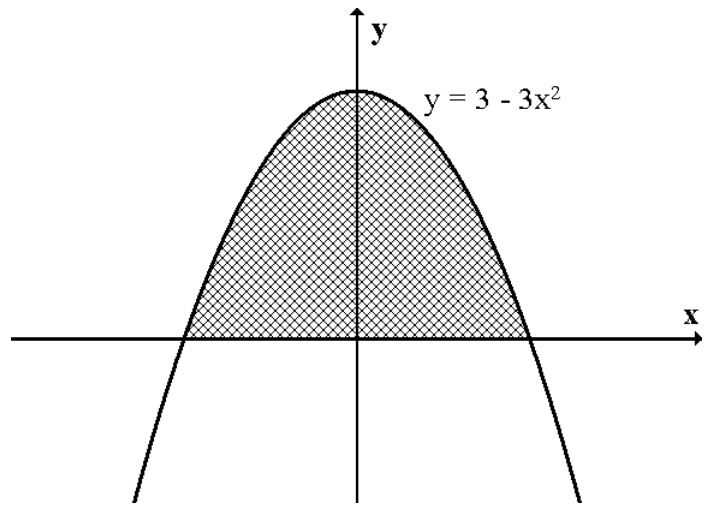
4. The diagram shows part of the graph of $y = 2x^2 - 18$.

- (a) Calculate the coordinates of P and Q.
(b) Find the shaded area.



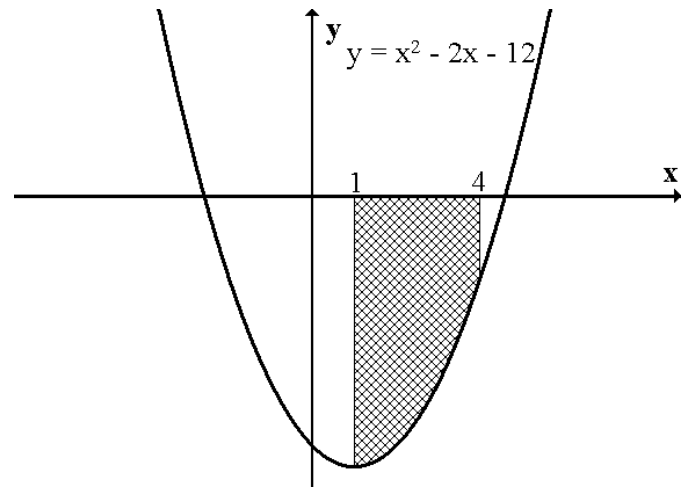
5. The diagram shows part of the graph of $y = 3 - 3x^2$.

Calculate the shaded area.



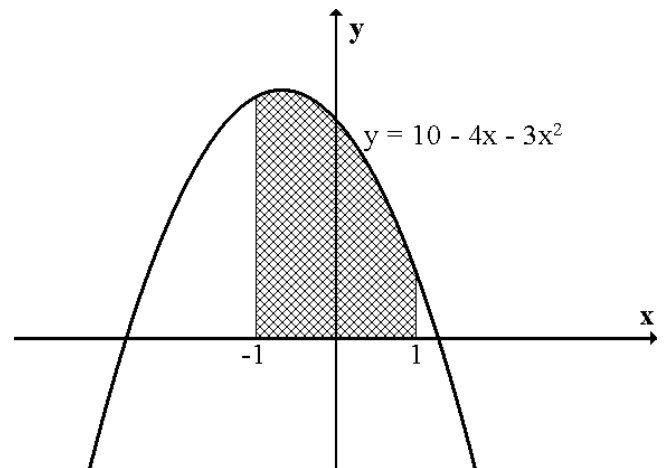
6. The diagram shows the graph of $y = x^2 - 2x - 12$.

Calculate the shaded area.



7. The diagram shows part of the graph of $y = 10 - 4x - 3x^2$.

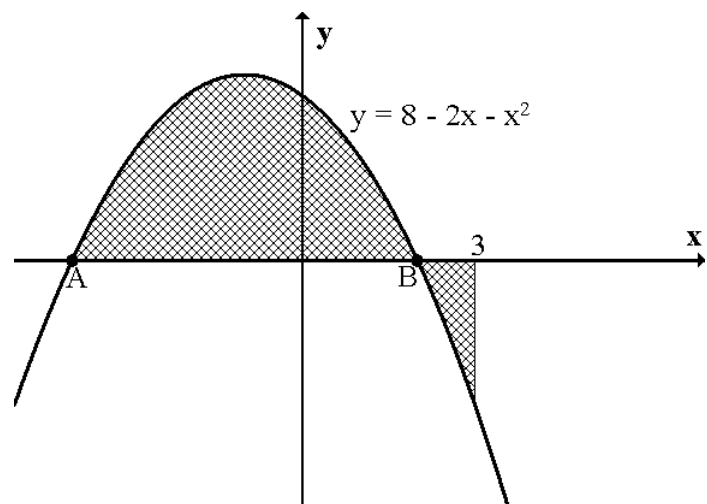
Calculate the shaded area.



8. The diagram shows the graph of $y = 8 - 2x - x^2$.

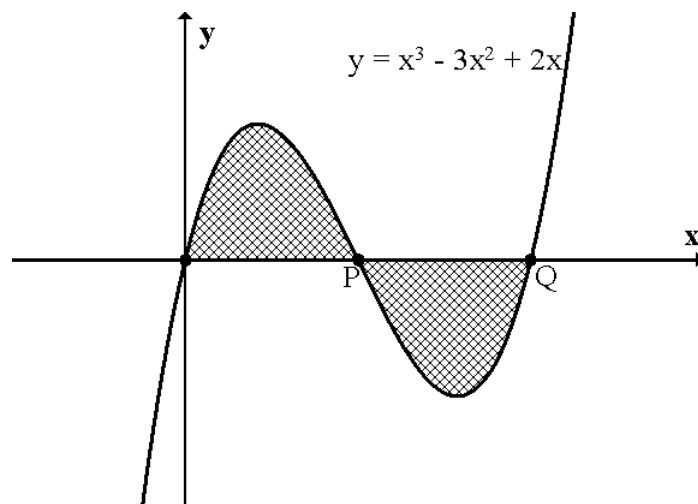
(a) Find the coordinates of A and B.

(b) Calculate the shaded area.



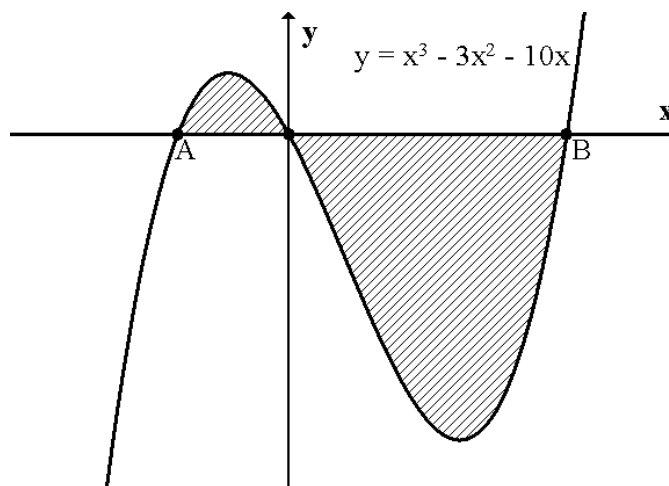
9. The diagram opposite shows part of the graph of $y = x^3 - 3x^2 + 2x$.

- (a) Find the coordinates of P and Q.
 (b) Calculate the shaded area.



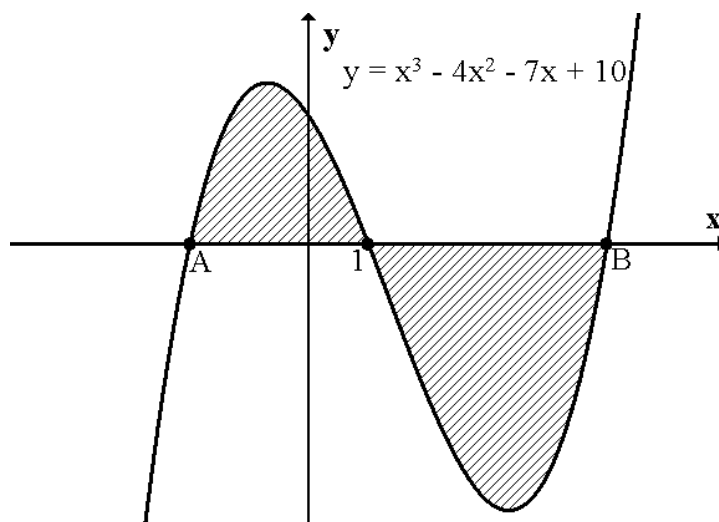
10. The diagram shows the graph of $y = x^3 - 3x^2 - 10x$.

- (a) Find the coordinates of A and B.
 (b) Calculate the shaded area.



11. The diagram shows the graph of $y = x^3 - 4x^2 - 7x + 10$.

- (a) Find the coordinates of A and B.
 (b) Calculate the shaded area.



12. The diagram shows the graph of $y = x^4 - 5x^2 + 4$.

Calculate the shaded area.

