

Chapter Name : Factorisation

- 1) If $(x - 2)$ is a factor of the expression $2x^3 + ax^2 + bx - 14$ and when the expression is divided by $(x - 3)$, it leaves a remainder 52, find the value of a and b .
- 2) If $(x-2)$ is a factor of expression $2x^3 + ax^2 + bx - 14$ and when the expression is divided by $(x-3)$, it leaves a remainder 52, find the value of a and b .
- 3) Using remainder theorem factorise the following polynomial $3x^3 + 2x^2 - 19x + 6$
- 4) Given that $x + 2$ and $x + 3$ are factors of $2x^3 + ax^2 + 7x - b$. Determine the values of a and b .
- 5) Show that $x - 1$ is a factor of $x^3 - 7x^2 + 14x - 8$. Hence, completely factorise the above expression.
- 6) What number must be added to $2x^3 - 7x^2 + 2x$ so that the resulting polynomial leaves the remainder $- 2$ when divided by $2x - 3$?
- 7) Find the values of p and q , if $g(x) = x + 2$ is a factor of $f(x) = x^3 - px + q$ and $f(2) = 4$.
- 8) The expression $2x^3 + ax^2 + bx - 2$ leaves the remainder 7 and 0 when divided by $2x - 3$ and $x + 2$ respectively. Calculate the values of a and b . With these values of a and b , factorise the expression completely.
- 9) Show that $x - 1$ is a factor of $x^3 - 7x^2 + 14x - 8$. Hence, completely factorise the above expression.
- 10) Given that $x + 2$ and $x + 3$ are factors of $2x^3 + ax^2 + 7x - b$. Determine the values of a and b .