9TH CBSE MATHS WORKSHEET

Factorise: $2x^3 - x^2 - 13x - 6$

By using factor theorem, factorise: $x^3 - 23x^2 + 142x - 120$

Factorise: $x^3 - 8x^2 + 17x - 10$

Factorise by using factor theorem:$x^3 + 13x^2 + 32x + 20$

Factorise: $2x^3 - 3x^2 - 17x + 30$

Factorise: $4x^3 + 20x^2 + 33x + 18$

Factorise: $y^3 - 2y^2 - 29y - 42$

Using factor theorem, factorise: $x^3 - 2x^2 - 5x + 6$

Expand each of the following using suitable identities: $(x + 2y + 4z)^2$

Expand each of the following using suitable identities: $(2x - y + z)^2$

Expand each of the following using suitable identities: $(-2x + 3y + 2z)^2$

Verify:
(i) $x^3 + y^3 = (x + y)(x^2 - xy + y^2$
(ii) $x^3 + y^3 = (x - y)(x^2 + xy + y^2)$

Factorise each of the following:
(i) $27y^3 + 125z^3$
(ii) $64m^3 - 343n^3$

If a+b+c=6 and ab+bc+ca=11, find the value of $a^3+b^3+c^3-3abc$.

If x+y+z=10 and $x^2+y^2+z^2=40$. Find xy+yz and $x^3+y^3+z^3-3xyz$.

Factorise:
(i) $12x^2 - 7x + 1$
(ii) $2x^2 + 7x + 3$
(iii) $6x^2 + 5x - 6$
(iv) $3x^2 - x - 4$