Exercise 2E

Question 9:

$x(x + y)^3 - 3x^2y(x + y)$

$= x(x + y)[(x + y)^2 - 3xy]$

$= x(x + y)(x^2 + y^2 + 2xy - 3xy)$

$= x(x + y)(x^2 + y^2 - xy)$

Question 10:

$x^3 + 2x^2 + 5x + 10$

$= x^2(x + 2) + 5(x + 2)$

$= (x^2 + 5)(x + 2)$

Question 11:

$x^2 + xy - 2xz - 2yz$

$= x(x + y) - 2z(x + y)$

$= (x + y)(x - 2z)$

Question 12:

$a^3b - a^2b + 5ab - 5b$

$= a^2b(a - 1) + 5b(a - 1)$

$= (a - 1)(a^2b + 5b)$

$= (a - 1)b(a^2 + 5)$

$= b(a - 1)(a^2 + 5)$

Question 13:

$8 - 4a - 2a^3 + a^4$

$= 4(2 - a) - a^3(2 - a)$

$= (2 - a)(4 - a^3)$

*********** END **********