Exercise 2E

Question 32:

$ab(x^2 + 1) + x(a^2 + b^2)$

$= abx^2 + ab + a^2x + b^2x$

$= abx^2 + a^2x + ab + b^2x$

$= ax(bx + a) + b(bx + a)$

$= (bx + a)(ax + b)$

Question 33:

$x^2 - (a + b)x + ab$

$= x^2 - ax - bx + ab$

$= x(x - a) - b(x - a)$

$= (x - a)(x - b)$

Question 34:

$$x^2 + \frac{1}{x^2} - 2 - 3x + \frac{3}{x}$$

$$= \left(x - \frac{1}{x}\right)^2 - 3\left(x - \frac{1}{x}\right)$$

$$= \left(x - \frac{1}{x}\right)\left(x - \frac{1}{x} - 3\right)$$

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