



EXERCISE 5.6: Use MATLAB to compute the following product of polynomials:

$$P(x) = (1 + 2x + 3x^2 + 5x^4)(1 - 3x - x^2 + x^3 + 3x^4)$$



In MATLAB, use `conv()` function
`conv([1, 2, 3, 0, 5], [1, -3, -1, 1, 3])`

MISSING
 x^3 TERM

The answer computed by MATLAB is:

`[1, -1, -4, -10, 7, -6, 4, 5, 15]`

As a polynomial:

$$1 - x - 4x^2 - 10x^3 + 7x^4 - 6x^5 + 4x^6 + 5x^7 + 15x^8$$