

Solutions – Extended Binomial Theorem (A)

Expand the first 3 terms of $(1 + 6x)^{-1}$.

$$1 - 6x + 36x^2$$

Expand the first 3 terms of $(1 - x)^{0.5}$.

$$1 - 0.5x - 0.125x^2$$

Expand the first 3 terms of $(1 + x)^{1.5}$.

$$1 + 1.5x + 0.375x^2$$

Expand the first 3 terms of $(1 - 3x)^{-1}$.

$$1 + 3x + 9x^2$$

Expand the first 3 terms of $(1 + 6x)^{-2}$.

$$1 - 12x + 108x^2$$

Expand the first 3 terms of $(1 - 5x)^{-0.5}$.

$$1 + 2.5x + 9.375x^2$$

Solutions – Extended Binomial Theorem (B)

Expand the first 3 terms of $(1 - 6x)^{-3}$.

$$1 + 18x + 216x^2$$

Expand the first 3 terms of $(1 - 2x)^{1.5}$.

$$1 - 3x + 1.5x^2$$

Expand the first 3 terms of $(1 + 4x)^{-3}$.

$$1 - 12x + 96x^2$$

Expand the first 3 terms of $(1 + 5x)^{-0.5}$.

$$1 - 2.5x + 9.375x^2$$

Expand the first 3 terms of $(1 + 3x)^{0.5}$.

$$1 + 1.5x - 1.125x^2$$

Expand the first 3 terms of $(1 + x)^{-2}$.

$$1 - 2x + 3x^2$$

Solutions – Extended Binomial Theorem (C)

Expand the first 3 terms of $(1 + 4x)^{1.5}$.

$$1 + 6x + 6x^2$$

Expand the first 3 terms of $(1 - 6x)^{-0.5}$.

$$1 + 3x + 13.5x^2$$

Expand the first 3 terms of $(1 + 5x)^{-3}$.

$$1 - 15x + 150x^2$$

Expand the first 3 terms of $(1 - 5x)^{-2}$.

$$1 + 10x + 75x^2$$

Expand the first 3 terms of $(1 - 4x)^{-0.5}$.

$$1 + 2x + 6x^2$$

Expand the first 3 terms of $(1 - 6x)^{-3}$.

$$1 + 18x + 216x^2$$

Solutions – Extended Binomial Theorem (D)

Expand the first 3 terms of $(1 - 3x)^{0.5}$.

$$1 - 1.5x - 1.125x^2$$

Expand the first 3 terms of $(1 + 6x)^{-0.5}$.

$$1 - 3x + 13.5x^2$$

Expand the first 3 terms of $(1 + 4x)^{-3}$.

$$1 - 12x + 96x^2$$

Expand the first 3 terms of $(1 - 6x)^{-3}$.

$$1 + 18x + 216x^2$$

Expand the first 3 terms of $(1 - 2x)^{-1}$.

$$1 + 2x + 4x^2$$

Expand the first 3 terms of $(1 - 6x)^{0.5}$.

$$1 - 3x - 4.5x^2$$

Solutions – Extended Binomial Theorem (E)

Expand the first 3 terms of $(1 - 3x)^{-3}$.

$$1 + 9x + 54x^2$$

Expand the first 3 terms of $(1 + 6x)^{-1}$.

$$1 - 6x + 36x^2$$

Expand the first 3 terms of $(1 + x)^{-1}$.

$$1 - x + x^2$$

Expand the first 3 terms of $(1 + 6x)^{0.5}$.

$$1 + 3x - 4.5x^2$$

Expand the first 3 terms of $(1 - 5x)^{1.5}$.

$$1 - 7.5x + 9.375x^2$$

Expand the first 3 terms of $(1 - 6x)^{-2}$.

$$1 + 12x + 108x^2$$

Solutions – Extended Binomial Theorem (F)

Expand the first 3 terms of $(1 - 3x)^{-3}$.

$$1 + 9x + 54x^2$$

Expand the first 3 terms of $(1 + x)^{-3}$.

$$1 - 3x + 6x^2$$

Expand the first 3 terms of $(1 - 5x)^{1.5}$.

$$1 - 7.5x + 9.375x^2$$

Expand the first 3 terms of $(1 - 4x)^{-3}$.

$$1 + 12x + 96x^2$$

Expand the first 3 terms of $(1 - 2x)^{-1}$.

$$1 + 2x + 4x^2$$

Expand the first 3 terms of $(1 - 5x)^{-1}$.

$$1 + 5x + 25x^2$$

Solutions – Extended Binomial Theorem (G)

Expand the first 3 terms of $(1 - 6x)^{1.5}$.

$$1 - 9x + 13.5x^2$$

Expand the first 3 terms of $(1 + 6x)^{0.5}$.

$$1 + 3x - 4.5x^2$$

Expand the first 3 terms of $(1 - 6x)^{-2}$.

$$1 + 12x + 108x^2$$

Expand the first 3 terms of $(1 - 3x)^{-3}$.

$$1 + 9x + 54x^2$$

Expand the first 3 terms of $(1 + 2x)^{-0.5}$.

$$1 - x + 1.5x^2$$

Expand the first 3 terms of $(1 + 6x)^{-1}$.

$$1 - 6x + 36x^2$$

Solutions – Extended Binomial Theorem (H)

Expand the first 3 terms of $(1 + 4x)^{-1}$.

$$1 - 4x + 16x^2$$

Expand the first 3 terms of $(1 + 4x)^{-0.5}$.

$$1 - 2x + 6x^2$$

Expand the first 3 terms of $(1 - 5x)^{-0.5}$.

$$1 + 2.5x + 9.375x^2$$

Expand the first 3 terms of $(1 + 2x)^{0.5}$.

$$1 + x - 0.5x^2$$

Expand the first 3 terms of $(1 - 6x)^{1.5}$.

$$1 - 9x + 13.5x^2$$

Expand the first 3 terms of $(1 + 6x)^{1.5}$.

$$1 + 9x + 13.5x^2$$

Solutions – Extended Binomial Theorem (I)

Expand the first 3 terms of $(1 - 4x)^{-3}$.

$$1 + 12x + 96x^2$$

Expand the first 3 terms of $(1 - 2x)^{-1}$.

$$1 + 2x + 4x^2$$

Expand the first 3 terms of $(1 - 4x)^{1.5}$.

$$1 - 6x + 6x^2$$

Expand the first 3 terms of $(1 + 5x)^{1.5}$.

$$1 + 7.5x + 9.375x^2$$

Expand the first 3 terms of $(1 + x)^{-1}$.

$$1 - x + x^2$$

Expand the first 3 terms of $(1 - 6x)^{1.5}$.

$$1 - 9x + 13.5x^2$$

Solutions – Extended Binomial Theorem (J)

Expand the first 3 terms of $(1 + 4x)^{-1}$.

$$1 - 4x + 16x^2$$

Expand the first 3 terms of $(1 - 2x)^{-2}$.

$$1 + 4x + 12x^2$$

Expand the first 3 terms of $(1 + 2x)^{-0.5}$.

$$1 - x + 1.5x^2$$

Expand the first 3 terms of $(1 + 6x)^{-3}$.

$$1 - 18x + 216x^2$$

Expand the first 3 terms of $(1 + 3x)^{-2}$.

$$1 - 6x + 27x^2$$

Expand the first 3 terms of $(1 + 6x)^{1.5}$.

$$1 + 9x + 13.5x^2$$