

## Polynomials - single variable - decimals

**Simplify each expression.**

1)  $(1.7p + 6.7p^2 - 4p^3) + (4.8p + 6.3p^2 - 8.6p^3)$

2)  $(3m + 9.7m^3 - 8.7m^4) - (1.1m^3 - 4.49m - 2.6m^4)$

3)  $(2.5r + 7.17r^3 - 3.1r^2) + (9.9r - 8.6r^3 - 1.5)$

4)  $(5.6b^2 - 1.6b^3 + 3.7b) + (5.4b^2 + 1.4b + 7b^3)$

$$5) (3.2n^3 - 5.5n^4 + 8.1) - (0.17n^4 - n^3 + 4.1n^2)$$

$$6) (8.6a^2 - 3.1a^3 + 7.44) + (6.2a - 7.5a^2 - 8.84a^3)$$

$$7) (7.008x - 0.2x^3 + 4x^2) + (0.8x^3 - 6.6x^2 + 6.6x)$$

$$8) (9.3 + 2.2x^4 - 8.4x^2) + (7.2 + 7.6x^2 - 3.3x^4)$$

$$9) (1.47x + 0.247x^3 - 9) - (2.6x - 5.9x^2 - 5.9)$$

$$10) (4.5 - 6.6v - 7.1v^3) - (2.1v + 4.5 + 8.2v^3)$$

$$11) (5.58p^4 + 7.5p^2 + 7.5p) - (4.6p + 0.5p^4 + 7.6p^2)$$

$$12) (2.35m^3 + 0.92m^4 + 7.5m) + (4.01m^4 - 2.118m^2 + 6.1m)$$

$$13) (5.8 - 2.2b^2 - 1.2b^4) - (2.1 + 5.3b^4 + 8.1b^2)$$

$$14) (1.4 - 2.6n^2 - 3.79n^4) + (9.5n^4 - 2.35n^3 - 5n^2)$$

$$15) (8.4a^3 + 6.6a^4 - 8.9a) - (6.3a^3 + 1.21a^4 - 3.4a)$$

$$16) (2.1x^2 + 2.7 - 5.5x^4) - (4.5x^4 + 8.8 - 0.5x^2)$$

$$17) (7.5p^2 + 5.1 - 8.133p^3) - (5.9p^3 + 7.99p - 4.182p^2)$$

$$18) (6.6x - 0.3 + 9.9x^2) + (0.4 + 7.1x + 9x^2)$$

$$19) (9.2m^4 - 6.74m + 5.8m^2) + (1.735m + 9.3m^2 - 9.2m^4)$$

$$20) (8.2r + 2.318r^2 + 1.071r^4) + (8.5r - 7.2r^2 - 3.6r^4)$$

$$21) (9.33 - 3.63v^3 + 5.8v^2) + (7.3v^3 + 9.7v^2 + 8.9)$$

$$22) (4.2a - 2.6a^2 - 7.5a^3) + (8.4a^2 - 6.8a + 1.7a^4)$$

$$23) (8.6n^2 - 4.17 - 3.1n) - (7.9n + 0.2 + 0.8n^2)$$

$$24) (0.3x^4 + 5.1x^2 - 0.5) + (8.14x^2 + 0.2x^3 - 2.4)$$

$$25) (7.3n^4 + 1.7n^2 + 0.3n^3) - (8.8n^2 + 8.9n^4 + 10n^3)$$

$$26) (1.1p^2 - 9.13p^3 - 7.2p^4) + (0.4p^3 - 8.6p^4 + 8.3p^2)$$

$$27) (x^2 - 9.8x^3 + 0.5x) - (3.037 + 2.3x^3 + 5.9x^2)$$

$$28) (9.4 + 8b - 2.8b^4) + (1.3b^4 - 8.6 - 9.2b)$$

$$29) (6.4r - 8.52r^2 + 4.3r^3) - (6 - 6.4r - 1.78r^2)$$

$$30) (7.1v^3 - 2.1 + 8.79v^4) + (7.3v + 3.4v^4 - 8.61)$$

## Answers to Polynomials - single variable - decimals

- 1)  $-12.6p^3 + 13p^2 + 6.5p$       2)  $-6.1m^4 + 8.6m^3 + 7.49m$   
3)  $-1.43r^3 - 3.1r^2 + 12.4r - 1.5$       4)  $5.4b^3 + 11b^2 + 5.1b$   
5)  $-5.67n^4 + 4.2n^3 - 4.1n^2 + 8.1$       6)  $-11.94a^3 + 1.1a^2 + 6.2a + 7.44$   
7)  $0.6x^3 - 2.6x^2 + 13.608x$       8)  $-1.1x^4 - 0.8x^2 + 16.5$   
9)  $0.247x^3 + 5.9x^2 - 1.13x - 3.1$       10)  $-15.3v^3 - 8.7v$   
11)  $5.08p^4 - 0.1p^2 + 2.9p$       12)  $4.93m^4 + 2.35m^3 - 2.118m^2 + 13.6m$   
13)  $-6.5b^4 - 10.3b^2 + 3.7$       14)  $5.71n^4 - 2.35n^3 - 7.6n^2 + 1.4$   
15)  $5.39a^4 + 2.1a^3 - 5.5a$       16)  $-10x^4 + 2.6x^2 - 6.1$   
17)  $-14.033p^3 + 11.682p^2 - 7.99p + 5.1$       18)  $18.9x^2 + 13.7x + 0.1$   
19)  $15.1m^2 - 5.005m$       20)  $-2.529r^4 - 4.882r^2 + 16.7r$       21)  $3.67v^3 + 15.5v^2 + 18.23$   
22)  $1.7a^4 - 7.5a^3 + 5.8a^2 - 2.6a$       23)  $7.8n^2 - 11n - 4.37$   
24)  $0.3x^4 + 0.2x^3 + 13.24x^2 - 2.9$       25)  $-1.6n^4 - 9.7n^3 - 7.1n^2$   
26)  $-15.8p^4 - 8.73p^3 + 9.4p^2$       27)  $-12.1x^3 - 4.9x^2 + 0.5x - 3.037$   
28)  $-1.5b^4 - 1.2b + 0.8$       29)  $4.3r^3 - 6.74r^2 + 12.8r - 6$   
30)  $12.19v^4 + 7.1v^3 + 7.3v - 10.71$