

Simplifying Polynomial Expressions

Simplify the following polynomial expressions.

1) $4r^2 + 2 - 5r^2 + 6r^8 - 13 - r^8$

2) $7x^6 + 2x^2(-5x^4 + 9) - 10x^2$

3) $2p^9 - (9p - 5) + 10p^9 + 4$

4) $-15 + 8a^4 + a(3a^2 + 5a^3) + 11$

5) $14 - 5(2u^2 - 12u^3) - 3u^3 - 8$

6) $9t^5 + 6(-2t^4 + 3t^5 - 4) + 13$

7) $-11 - 9(2v^7 + 7v^2) + 8v^2 + 1$

8) $-k(-6k^9 - 15) + 10 - 12k^{10} - 5$

Simplifying Polynomial Expressions Answer key

Simplify the following polynomial expressions.

1) $4r^2 + 2 - 5r^2 + 6r^8 - 13 - r^8$

$$\underline{5r^8 - r^2 - 11}$$

2) $7x^6 + 2x^2(-5x^4 + 9) - 10x^2$

$$\underline{-3x^6 + 8x^2}$$

3) $2p^9 - (9p - 5) + 10p^9 + 4$

$$\underline{12p^9 - 9p + 9}$$

4) $-15 + 8a^4 + a(3a^2 + 5a^3) + 11$

$$\underline{13a^4 + 3a^3 - 4}$$

5) $14 - 5(2u^2 - 12u^3) - 3u^3 - 8$

$$\underline{57u^3 - 10u^2 + 6}$$

6) $9t^5 + 6(-2t^4 + 3t^5 - 4) + 13$

$$\underline{27t^5 - 12t^4 - 11}$$

7) $-11 - 9(2v^7 + 7v^2) + 8v^2 + 1$

$$\underline{-18v^7 - 55v^2 - 10}$$

8) $-k(-6k^9 - 15) + 10 - 12k^{10} - 5$

$$\underline{-6k^{10} + 15k + 5}$$