Simplifying Algebraic Expressions

Practice Worksheet

MATH MONKS

Simplify each expression.

1. $5p^4 - 6p^3 - 3p^2 - 3p^3 - 5p^4$

2. $2(q^2 + 2q^2 - 5q^3) + 8q^3 + 19$

3. $10 + 2y^2 - (8y^3 - y^2 + 5y^3)$

4. $-4(b^4 - 10) - 2(b^4 + 8)$

5. $-4(x^2 - 2) + 2(4 - x^2)$

6. $10(3t^2 + 2t^4) - 5(t^3 + 2)$

7. $(4q^3 - 2q^2) - (5q^3 + 7q^2)$

8. $2(10 - 7c^7 - 6c^2 - 2c + 5)$

9. $10y^3 - 2y^2 + 5y^3 - 6y^2$

10. $8z(z^2 + 2) - 6z + 8$

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Answers

1 $5p^4 - 6p^3 - 3p^2 - 3p^3 - 5p^4$

$-9p^3 - 3p^2$

2 $2(q^2 + 2q^2 - 5q^3) + 8q^3 + 19$

$-2q^3 + 6q^2 + 19$

3 $10 + 2y^2 - (8y^3 - y^2 + 5y^3)$

$-13y^3 + 3y^2 + 10$

4 $-4(b^4 - 10) - 2(b^4 + 8)$

$-6b^4 + 24$

5 $-4(x^2 - 2) + 2(4 - x^2)$

$-6x^2 + 16$

6 $10(3t^2 + 2t^4) - 5(t^3 + 2)$

$20t^4 - 5t^3 + 30t^2 - 10$

7 $(4q^3 - 2q^2) - (5q^3 + 7q^2)$

$-q^3 - 9q^2$

8 $2(10 - 7c^7 - 6c^2 - 2c + 5)$

$-14c^7 - 12c^2 - 4c + 28$

9 $10y^3 - 2y^2 + 5y^3 - 6y^2$

$15y^3 - 8y^2$

10 $8z(z^2 + 2) - 6z + 8$

$8z^3 + 10z + 8$