Multiplying Two Trinomials (H)

Simplify each expression.

1. $(-4f^4 - 8f^3 + 7f^2)(-8f^5 - 3f^4 - 9f^3)$

2. $(4w^5 + 9w^4 + 3w^3)(-8w^3 + 9w^2 + 8w)$

3. $(4a^5 - a^4 - 3a^3)(-7a^3 + 6a^2 + 8a)$

4. $(4w^5 + 2w^4 + 7w^3)(5w^2 - 3w - 6)$

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

6. $(-9q^3 + q^2 - 6q)(5q^2 - 3q - 5)$

7. $(2n^2 - 2n - 5)(4n^5 - 6n^4 - n^3)$

8. $(2b^5 - 2b^4 - 3b^3)(3b^3 + 3b^2 + 4b)$

9. $(-n^4 + 6n^3 + 7n^2)(5n^3 + 8n^2 - 9n)$

10. $(4p^4 - 7p^3 - 2p^2)(-6p^5 - 6p^4 - p^3)$

Multiplying Two Trinomials (H) Answers

Simplify each expression.

1. $(-4f^4 - 8f^3 + 7f^2)(-8f^5 - 3f^4 - 9f^3)$
   $= 32f^9 + 76f^8 + 4f^7 + 51f^6 - 63f^5$

2. $(4w^5 + 9w^4 + 3w^3)(-8w^3 + 9w^2 + 8w)$
   $= -32w^8 - 36w^7 + 89w^6 + 99w^5 + 24w^4$

3. $(4a^5 - a^4 - 3a^3)(-7a^3 + 6a^2 + 8a)$
   $= -28a^8 + 31a^7 + 47a^6 - 26a^5 - 24a^4$

4. $(4w^5 + 2w^4 + 7w^3)(5w^2 - 3w - 6)$
   $= 20w^7 - 2w^6 + 5w^5 - 33w^4 - 42w^3$

5. $(-n^2 + 5n + 4)(-n^3 - 7n^2 + 3n)$
   $= n^5 + 2n^4 - 42n^3 - 13n^2 + 12n$

6. $(-9q^3 + q^2 - 6q)(5q^2 - 3q - 5)$
   $= -45q^5 + 32q^4 + 12q^3 + 13q^2 + 30q$

7. $(2n^2 - 2n - 5)(4n^5 - 6n^4 - n^3)$
   $= 8n^7 - 20n^6 - 10n^5 + 32n^4 + 5n^3$

8. $(2b^5 - 2b^4 - 3b^3)(3b^3 + 3b^2 + 4b)$
   $= 6b^8 - 7b^6 - 17b^5 - 12b^4$

9. $(-n^4 + 6n^3 + 7n^2)(5n^3 + 8n^2 - 9n)$
   $= -5n^7 + 22n^6 + 92n^5 + 2n^4 - 63n^3$

10. $(4p^4 - 7p^3 - 2p^2)(-6p^5 - 6p^4 - p^3)$
    $= -24p^9 + 18p^8 + 50p^7 + 19p^6 + 2p^5$