Multiplying a Monomial by a Binomial (A)

Simplify each expression.

1. $-3n^3(-8n^3 - 3n^2)$

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

3. $9h^4(-9h - 9)$

4. $4b(9b^5 + 7b^4)$

5. $-8v^3(3v^5 + 3v^4)$

6. $-2a^2(-8a^2 + 9a)$

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

8. $-6p(2p^3 - 4p^2)$

9. $-2p^3(-4p^4 - 7p^3)$

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

Multiplying a Monomial by a Binomial (A) Answers

Simplify each expression.

1. $-3n^3(-8n^3 - 3n^2)$
$= 24n^6 + 9n^5$

2. $9a^5(-8a^4 + 2a^3)$
$= -72a^9 + 18a^8$

3. $9h^4(-9h - 9)$
$= -81h^5 - 81h^4$

4. $4b(9b^5 + 7b^4)$
$= 36b^6 + 28b^5$

5. $-8v^3(3v^5 + 3v^4)$
$= -24v^8 - 24v^7$

6. $-2a^2(-8a^2 + 9a)$
$= 16a^4 - 18a^3$

7. $7a^3(-3a^4 + 6a^3)$
$= -21a^7 + 42a^6$

8. $-6p(2p^3 - 4p^2)$
$= -12p^4 + 24p^3$

9. $-2p^3(-4p^4 - 7p^3)$
$= 8p^7 + 14p^6$

10. $3x^3(-2x^5 + 9x^4)$
$= -6x^8 + 27x^7$