3.4.2: Expand and Simplify Polynomial Expressions

Date: _____

Find each product.

1) $-7p\left(7p^2-5p+6\right)$

2) $-6x\left(-5x^2+3x-3\right)$

3) $8x\left(x^2+2x-1\right)$

4) $2\left(-2r^2-3r+4\right)$

5) $\left(5m+n\right)\left(9m-10n\right)$

6) $\left(4u-6v\right)\left(u-5v\right)$

7) $\left(4x+7y\right)\left(2x-10y\right)$

8) $\left(6x+4\right)\left(-5x^2+8x+5\right)$

9) $\left(6a-6\right)\left(-8a^2+3a-3\right)$

10) $\left(5x+6y\right)\left(-5x^2-2xy-5y^2\right)$

11) $\left(-8x+8y\right)\left(6x^2+2xy+7y^2\right)$

12) $\left(x^2-3xy+3y^2\right)\left(-3x^2+2xy+2y^2\right)$

Answers to 3.4.2

1) $-49p^3+35p^2-42p$

2) $30x^3-18x^2+18x$

3) $8x^3+16x^2-8x$

4) $-4r^2-6r+8$

5) $45m^2-41mn-10n^2$

6) $4u^2-26uv+30v^2$

7) $8x^2-26xy-70y^2$

8) $-30x^3+28x^2+62x+20$

9) $-48a^3+66a^2-36a+18$

10) $-25x^3-40x^2y-37xy^2-30y^3$

11) $-48x^3+32x^2y-40xy^2+56y^3$

12) $-3x^4+11x^3y-13x^2y^2+6y^4$