



8-2 Multiplying and Factoring

1. Multiply:

a. $-2x^2(x-3)$

$-2x^3 + 6x^2$

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

$6x^3 - 12x^2 + 15x$

c. $-5x(x^3 - x - 2)$

$-5x^4 + 5x^2 + 10x$

2. Find the GCF of each expression:

a. $36x - 24$

12

b. $20x^2 + 35x$

$5x$

c. $-2x^3 + 4x^2 - 6x$

$-2x$

3. Factor out the GCF of each expression:

a. $12x - 8$

$4(3x - 2)$

b. $8x^2 - 6x$

$2x(4x - 3)$

a. $6x^3 - 12x^2 + 4x$

$2x(3x^2 - 6x + 2)$

$2x(3x - 2)(x - 2)$

$\begin{matrix} 12 \\ -2 & -6 \\ -8 \end{matrix}$

b. $-6x^4 + 21x^3 + 12x^2$

$-3x^2(2x^2 - 7x - 4)$

$-3x^2(2x + 1)(x - 4)$

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