

Notes 8.2 – Multiplying and Factoring Monomials

Learning Objectives:

- ▶ Multiply a monomial by a polynomial and simplify
- ▶ Recognize and factor a Greatest Common Factor
- ▶ Factor the GCF

Common Core Standards:

- ▶ F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

Simplify

1) $2x^3(3x^2 - 5x + \underline{\hspace{1cm}})$	2) $-3xy^2(2x^2y + 5xy^2 - \underline{\hspace{1cm}})$
3) $\underline{\hspace{1cm}}(2x + 8) - 3x(5x + 7)$	4) $-4xy(8xy - 7x + 6) - x(x + \underline{\hspace{1cm}})$

Determine the GCF

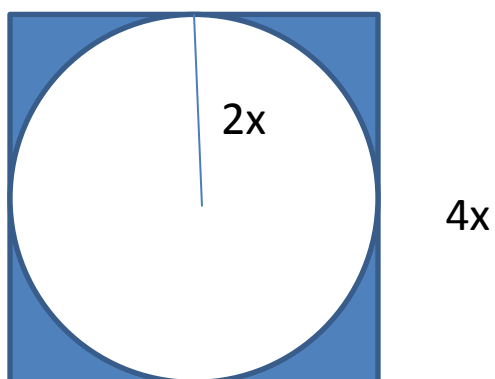
5) $5x^3 \quad 25x$	6) $21x^2y^3 \quad 7x^3y$
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Factor

7) $5x^3 + 25x - \underline{\hspace{1cm}}$	8) $21x^2y^3 - 7x^3y - \underline{\hspace{1cm}}$
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9) $9x^6 + 15x^4 + \underline{\hspace{2cm}}$	10) $16x^3 + 8x^2 + \underline{\hspace{2cm}}$
11) $\underline{\hspace{2cm}} + \pi x$	12) $81x^2y^2 + 9xy^5 - \underline{\hspace{2cm}}$

Find the area of the shaded region



Homework: