



Name: \_\_\_\_\_ Per: \_\_\_\_\_ TARGET/Section: 8.1

1	2	3	4	5
Blank /Beginning	Emerging	Nearly Proficient	Proficient	Mastery

Simplify the following state the degree and leading coefficient. Remember to always answer in standard form.

1.  $(-7x^4 + 14 - 2x) + (10x^4 + 7x + 5x^5)$

$$5x^5 + 3x^4 + 5x + 14 \quad \text{LC: } 5 \quad \text{Deg } 5$$

2.  $(-7n^2 + 8n - 4) - (-11n + 2 - 14n^2)$

$$7n^2 + 19n - 6 \quad \text{LC: } 7 \quad \text{Deg } 2$$

3.  $(y^3 - 7x^4y^4) + (-10x^4y^3 + 6y^3 + 4x^4y^4) - (x^4y^3 + 6x^4y^4)$

$$-9x^4y^4 - 11x^4y^3 + 7y^3$$

$$\text{LC} = -9 \quad \text{Deg: } 8$$

21. 21

Yes, Monomial, Deg 0

23.  $d + 3d^c$

NOPE!

25.  $5n^3 + n^4q^3$

Yes, Binomial, Deg 4

$$27. +8y + 7y^3 \quad \begin{matrix} 7y^3 + 8y \\ \uparrow \\ LC: 7 \end{matrix}$$

$$29. \underline{-y^3} + \underline{3y} - \underline{3y^2} + 2$$

$$31. 2 + \underline{r} - \underline{r^3} \quad -r^3 + r + 2 \quad LC: -1$$

$$33. -9b^2 + 10b - b^6$$

?      ?      ?      ?      ?  
 ?      ?      ?      ?      ?  
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# Questions

## On

# Homework

# 8-2 Multiplying a Polynomial by a Monomial

I can... multiply polynomials by a monomial.

$$\begin{aligned} & (3x-1) + 2(6x-5) \\ & 3x-1 + 2(6x) + 2(-5) \\ & \underline{3x-1} + \underline{12x} - \underline{10} \\ & \boxed{15x-11} \end{aligned}$$

1. Copy any terms that don't need the distributive property.
2. Perform the distributive property (this is multiplication and exponents do change)
3. Combine like terms (this is adding/subtracting and exponents DO NOT change!)

**You Try!**

Simplify

2.  $\underbrace{-4b}(\underbrace{1 - 9b - 2b^2})$

3.  $2m^2(2m^2 + 3m - 5)$

$$\begin{aligned}
 & 4. \quad +3t^2(2t^2 - 4t - 15) + 6t(5t^2 + 2) \\
 & +3t^2(2t^2) + 3t^2(-4t) + 3t^2(-15) + 6t(5t^2) + 6t(2) \\
 & 6t^4 - 12t^3 - 45t^2 \\
 & \quad +30t^3 \quad +12t \\
 & \hline
 & 6t^4 + 18t^3 - 45t^2 + 12t
 \end{aligned}$$

## Multiply Polynomials by Monomial

From chapter 7 we learned that when multiplying like bases add the exponents.

$$\begin{aligned}
 & \cancel{(y^2)^3} \quad +6y(4y^2 - 9y - 7) \\
 & +6y(4y^2) + 6y(-9y) + 6y(-7) \\
 & 24y^3 - 54y^2 - 42y
 \end{aligned}$$

$$5. \quad 5y^5(4y^2 + 5y - 2) + 2y^3(4y^4 + 3y^2)$$
$$28y^7 + 25y^6 - 4y^5$$

pg 475 # 1-9 odd, 19-29 odd  
# 37

