

Name: Key Class: _____

Practice - Polynomials 1

1) Complete the chart:

Expression	# of Terms	Monomial? Binomial? Trinomial? Polynomial?	Degree of Each Term	Degree of the Polynomial
$3 - 7x - 9x^2$	3	trinomial	3 → degree 0 -7x → degree 1 -9x ² → degree 2	2 nd degree
$6x^3 + 5$	2	binomial	6x ³ → degree 3 5 → degree 0	3 rd degree
-4	1	monomial	-4 → degree 0	0 degree
$-10y + 5x$	2	binomial	-10y → degree 1 5x → degree 1	1 st degree
$6x^3 + 2 - 8x$	3	trinomial	6x ³ → degree 3 2 → degree 0 -8x → degree 1	3 rd degree

2) Add the following polynomials:

a) $(7j^2 - 2) + (5j^2 - 3)$
 $7j^2 - 2 + 5j^2 - 3$
 $12j^2 - 5$

b) $(8x^2 - 4) + (-3x^2 + x - 2)$
 $8x^2 - 4 - 3x^2 + x - 2$
 $5x^2 - 6 + x$
 $5x^2 + x - 6$

c) $(6w^2 + 1) + (2w^2 + 9w - 1)$
 $6w^2 + 1 + 2w^2 + 9w - 1$
 $8w^2 + 9w$

d) $(-5x^2 - x + 4) + (-3x^2 - 5x + 2)$
 $-5x^2 - x + 4 - 3x^2 - 5x + 2$
 $-8x^2 - 6x + 6$

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

f) $(-4t + 4t^3 + 7) + (3t^3 - 9 - 3t)$
 $-4t + 4t^3 + 7 + 3t^3 - 9 - 3t$
 $-7t + 7t^3 - 2$
 $7t^3 - 7t - 2$

Outcomes:

PR5 - Demonstrate an understanding of polynomials
 PR6 - Adding and subtracting polynomials

3) Subtract the following polynomials:

$$\text{a) } (8x^2 - 3) - (5x^2 - 5)$$

$$\begin{array}{r} 8x^2 - 3 \\ - 5x^2 + 5 \\ \hline 3x^2 + 2 \end{array}$$

$$\text{b) } (-2x^2 + x) - (-7x^2 + 7x)$$

$$\begin{array}{r} -2x^2 + x \\ + 7x^2 - 7x \\ \hline 5x^2 - 6x \end{array}$$

$$\text{c) } (-6m^2 - 4) - (4m^2 + 3m + 8)$$

$$\begin{array}{r} -6m^2 - 4 \\ - 4m^2 - 3m - 8 \\ \hline -10m^2 - 3m - 12 \end{array}$$

$$\text{d) } (2x^2 + 3x + 9) - (5x^2 - 7x + 6)$$

$$\begin{array}{r} 2x^2 + 3x + 9 \\ - 5x^2 + 7x - 6 \\ \hline -3x^2 + 10x + 3 \end{array}$$

$$\text{e) } (-x^3 + x^2 + 4) - (3x^3 - 8x^2 - 2)$$

$$\begin{array}{r} -x^3 + x^2 + 4 \\ - 3x^3 + 8x^2 + 2 \\ \hline -4x^3 + 9x^2 + 6 \end{array}$$

$$\text{f) } (5b - 3 - 4b^2) - (8b^2 + 7 + 5b)$$

$$\begin{array}{r} 5b - 3 - 4b^2 \\ - 8b^2 - 7 - 5b \\ \hline -10 - 12b^2 \end{array}$$

Review of Adding & Subtracting Polynomials :



Outcomes:

PR5 - Demonstrate an understanding of polynomials
PR6 - Adding and subtracting polynomials