

March 22, 2016

5.2 Polynomials

$$3x^3 - 4x^4 + x^3 - 12x^4 - x + 8$$

Degree: 5
↓
Solutions

$x^1 \rightarrow$ line

$x^2 \rightarrow$ Curve

$x^3 \rightarrow$ Curve

$x^4 \rightarrow$ Curve

$x^5 \rightarrow$ "

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90 5.2 #1 - #60 m>

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5.4 Addition or Subtraction of Polynomials

What makes terms like?

- ① Same variable
- ② Same exponent

$5x^2y + 7x^2y$ like

$5x^2y + 7xy^2$ not like!

Addition means Combining like terms

$$5x^2y - 7x^2y = -2x^2y$$

$$x^2y (5 - 7)$$

like

$$x^2y (-2)$$

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$$\textcircled{1} (-8x^3y^2 + 2x^2y - 5) + \textcircled{1} (-3x^3y^2 - 10)$$

$$-8x^3y^2 + 2x^2y - 5 - 3x^3y^2 - 10$$

$$-8x^3y^2 - 3x^3y^2 + 2x^2y - 5 - 10$$

$$\boxed{-11x^3y^2 + 2x^2y - 15}$$

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$$\textcircled{1} (5x^3 - 2x^2 + 3) - \textcircled{1} (4x^2 + 6)$$

$$5x^3 - 2x^2 + 3 - 4x^2 - 6$$

$$\boxed{5x^3 - 6x^2 - 3}$$

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$$(-b^2c + 8bc^2 + 8c^3) - (6b^3 + b^2c - 4bc^2)$$

$$-b^2c + 8bc^2 + 8c^3 - 6b^3 - b^2c + 4bc^2$$

$$\boxed{-2b^2c + 12bc^2 + 8c^3 - 6b^3}$$

D: 3

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Do 5.4 #1 - #36 m>

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5.5 Laws of Exponents

What is the Meaning of an Exponent?

e.g. $x^3 = \boxed{x \cdot x \cdot x}$ meaning!

$\textcircled{3}$ ← Exponent
 \uparrow
 Base

$x^3 \cdot x^2 = x^{3+2=5}$
 $\underbrace{\hspace{2em}}_{\text{same base}}$

$x \cdot x \cdot x \cdot x \cdot x = x^5$

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