

October 18, 2016

3-4 #24

Volume of Water (gal) vs. Time (minutes)

$(0, 800)$ $(0 \text{ min}, 800 \text{ gal})$

$m = -40$

$40 \text{ gal/min Rate of Change}$

$$y = mx + b$$

$$V = mt + b$$

$$V = -40t + 800$$

$$0 = -40t + 800$$

$$\frac{-800}{-40} = \frac{-40t}{-40}$$

$$20 = t$$

* 20 minutes the tank is empty.

Oct 18-8:59 AM

5.2 Polynomials

$$-6x^5 + 2x^4 - 3x^2 + x + 10$$

Degree: 5

Always write a polynomial in decreasing (descending) order of exponent value.

Oct 18-9:17 AM

$$-2 + 5x^7 - 3x^{10}$$

$$-3x^{10} + 5x^3 - 2$$

degree: 10

$3x^3y^2$
D: 5

+

$2xy^3$
D: 4

-

$3y^3$
D: 3

Degree: 5

Oct 18-9:21 AM

5.4 Addition (subtraction) of Polynomials

$$3x^1 + 4x^1$$

Like Terms

- Same degree of terms D: 1
- Same value of exponents D: 1
- Same variables: x

Then they can be added (Combined)

$$x(3+4) = 3x + 4x$$

like

$$7x$$

Oct 18-9:25 AM

$$3x + 4y \text{ not like}$$

$$3x^2 + 4x \text{ not like}$$

$$x(3x + 4)$$

not

Oct 18-9:33 AM

$$4x^6y^{10}t^8 - 3x$$

Degree: $6 + 10 + 8 = 24$

Oct 18-9:36 AM

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

$$\boxed{4x^2} - 2x - 3x + \boxed{x^2}$$

$$\boxed{4x^2} + \boxed{x^2} - 2x - 3x$$

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

$$5x^2 + x(-5)$$

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

Oct 18-9:38 AM

$$(-6x^2y + 2xy^2 - 3) + (-4xy^2 + 5x^2y)$$

$$\boxed{-6x^2y} + \boxed{2xy^2} - 3 - \boxed{4xy^2} + \boxed{5x^2y}$$

$$\boxed{-x^2y - 2xy^2 - 3}$$

Answer: 3

Oct 18-9:46 AM