

What's Going On?

Checking In

Minds on

Applying The Exponent Laws

Action!

What's a Banapple?

Consolidation

Adding and Subtracting Like Terms

Learning Goal - I will be able to communicate with algebra!

$$y^6 \times y^8 = y^{6+8} = y^{14}$$

$$y^{15} \div y^{11} = y^{15-11} = y^4$$

$$(y^6)^3 = y^{6 \times 3} = y^{18}$$

Minds on

Applying The Exponent Laws

$9m^9 \div 3m^6$	$15j^7 \times 3j^3$	$12r^3s^5 \times 4r^4s^6$
$= \frac{9m^9}{3m^6}$ $= 3m^3$	$= (15)(3)(j^7)(j^3)$ $= 45j^{10}$	$= 48r^7s^{11}$

Minds on

Applying The Exponent Laws

$$\frac{2x^1y^4 \times 6x^3y^2}{4x^2y^5}$$
$$= \frac{12x^4y^6}{4x^2y^5}$$
$$= 3x^2y^1$$

Minds on

Applying The Exponent Laws

$$\frac{-12r^5s \times 3r^5(s^3)^3}{4(r^2)^4s}$$

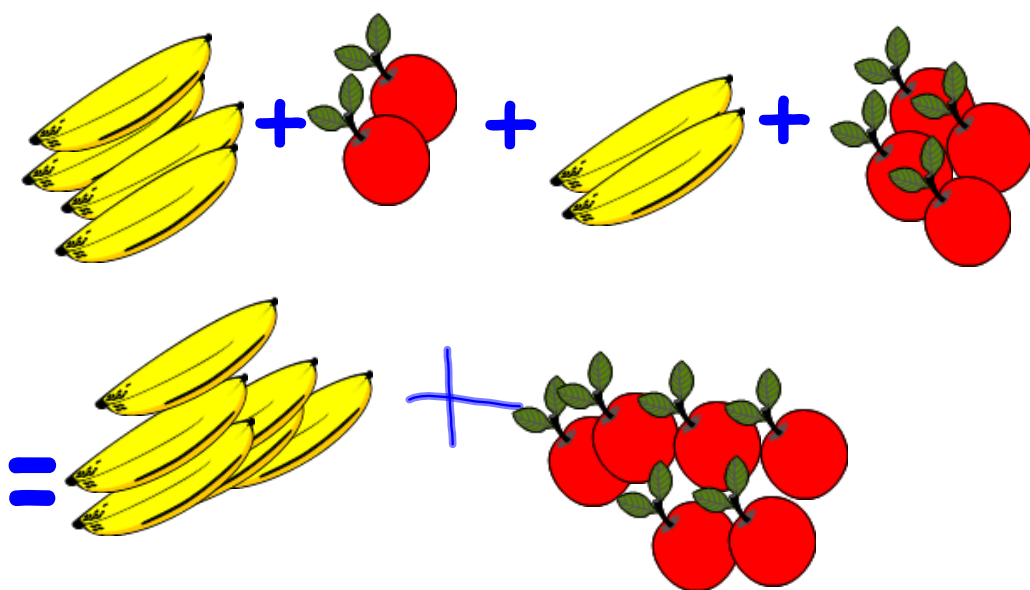
$$= \frac{-12r^5s^1 \times 3r^5s^9}{4r^8s}$$

$$= \frac{-36r^{10}s^{10}}{4r^8s}$$

$$= -9r^2s^9$$

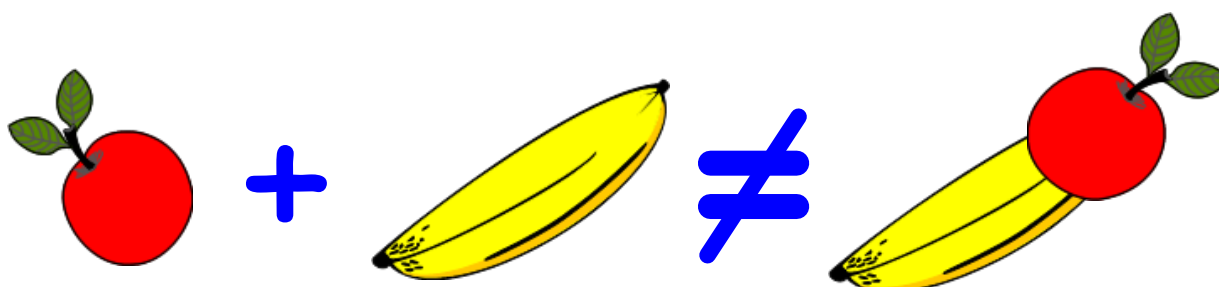
Action!

What's a banapple?



Action!

What's a banapple?



There is no such thing!!

The apple and the banana are NOT *like terms*

Therefore, we cannot add and subtract them.

$$x + y \neq xy$$

Consolidation

Like and Unlike Terms

Identifying **like terms** is a very basic concept, but it is something that a lot of students struggle with.

Two terms are considered **like terms** if they have the **EXACT** same variables.

We can **ONLY** add and subtract **LIKE** terms.

$6x$ and $-3x$ are like terms

$2x$ and $-4y$ are NOT like terms

$5ab$ and $-2ab$ are like terms

$8ab$ and $9a$ are NOT like terms


| Action!

$$2 + x \neq 2x$$

- 1) $2x$ and $-5x$ ✓ 3) $3uv$ and $2vu$ ✓ 6) $9p^2q^3$ and $-4q^3p^2$ ✓
 2) $4a^2$ and $3a^3$ ✗ 4) $3y$ and $3z$ ✗ 7) $-x^2$ and $\frac{1}{2}x^2$ ✓
 5) $2ab$ and $3a^2$ ✗ 8) $5x^2y$ and $-2xy^2$ ✗

Edit
?


7)
3)
5)



Like Terms

4)
6)
2)

1)
8)

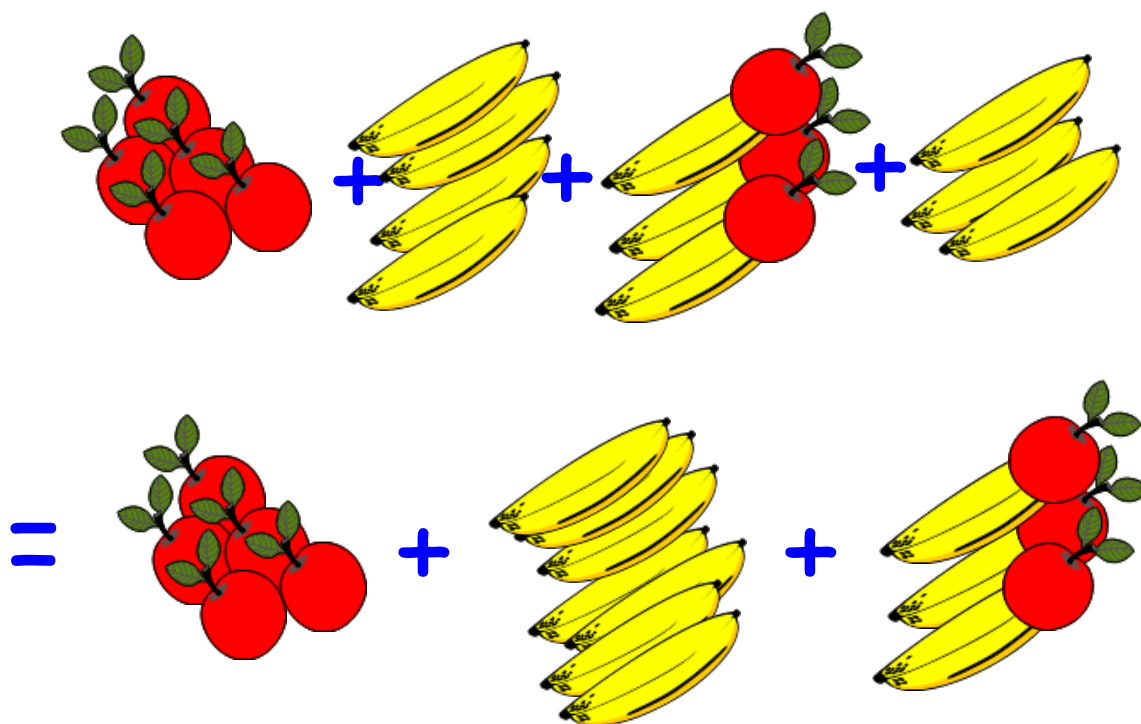


Unlike Terms

Reset

Consolidation

What's a banapple?



Consolidation

Simplify

$$2x + 11 + 3x - 3$$

1. Collect like terms (rearrange the equation)
2. Evaluate (add and subtract only like terms)

$$= 2x + 3x + 11 - 3$$
$$= 5x + 8$$

Consolidation

Collect Like Terms and Simplify

$$9x^2y + 2 + 6xy - 3x^2y + 16y + 18xy - 10$$

$$= \underbrace{9x^2y - 3x^2y} + \underbrace{+2 - 10} + \underbrace{+6xy + 18xy} + \underbrace{+16y}$$

$$= 6x^2y - 8 + 24xy + 16y$$

Homework Logs