Integers Rules

Adding

Same sign

( ) + ( )

Same

If the signs are the same, then add the # part AND

Keep same sign

Ex1) (-2) + (-4) = (-6)

same sign

2+4 & Keep sign

Ex2) (+3) + (+5) = (+8)

Different sign

(+) + (-)

Different

If the signs are different, then find the difference between # part (Big-small) AND

Keep same sign on larger # part (or who you have more of)

Ex1) (-10) + (+3) = (-7)

Diff sign

10-3 = 7 & Keep sign of negative (since more negatives)

Subtraction Add the opposite then follow adding rules

( ) - ( )

add opp

+ (opp)

Ex1) (-7) - (+4)

add opp

= (-7) + (-4)

Now use adding rules

Same

= (-11)

Multiplying & Dividing (Same rule)

Signs are the same then (+)

both positive

(+) x (+) = (+)

(-) x (-)

Both negative

Signs are different then (-)

different

(+) x (-) = (-)

(-) x (+)

different

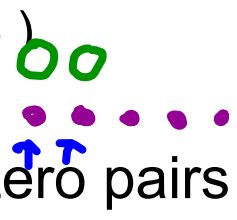
Integers Rules Modelling

Adding Tiles -->

Shade is positive Unshaded is Negative

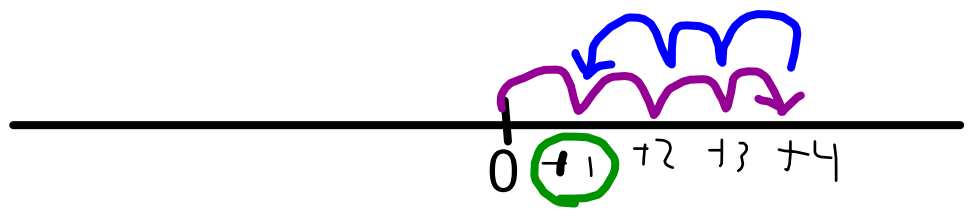
-2 +(5) + ( ) = (+3)

Top Bottom



see if any zero pairs form

Number lines --> Start at zero and use (-) to jump left and (+) to jump right



(+4) + (-3) = (+1)

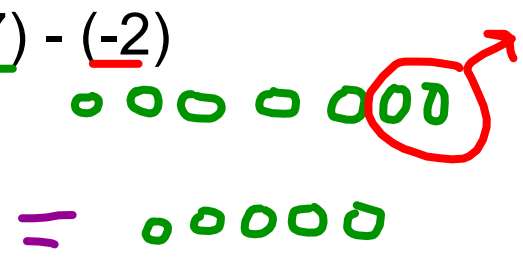
right 4 Back 3 Where you stop

Subtraction- only with tiles

Model first integer and ask if you can remove the second integer

if YES then circle and remove and record what is left

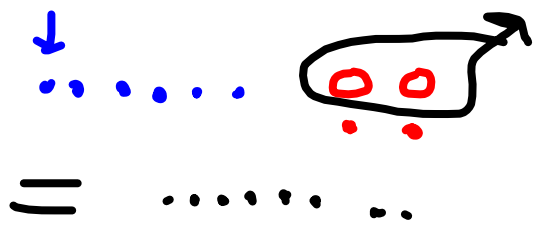
(-7) - (-2)



(-7) - (-2) = (-5)

if NO then need to add zero pairs, then remove the second integer

(+6) - (-2)



(+6) - (-2) = (+8)

Multiplication- with tiles (+)x(-) Remember the communitive law

(-)x(=) =(+)x(-)

# of groups x size of group

(+4) x (-2)

4 groups of -2

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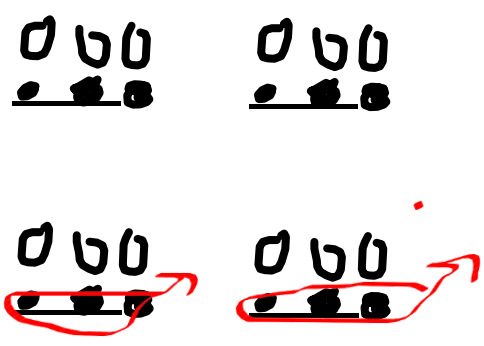
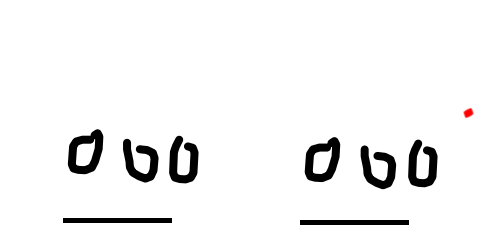
(+4) x (-2)= (-8)

Neg x Neg --> NEED Zero pairs

(-2) x (+3) Remove 2 groups of 3 shaded tiles





(-2) x (+3) = -6

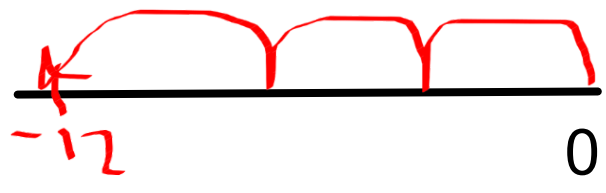
Divide with number lines

(Stop) ÷ (arrow size) = (# arrows)

OR

(Stop) ÷ (# arrow) = (arrow size)

(-12) ÷ (-3) = (+4)



(-10) ÷ (+2) = (-5)