

INTEGERS MINI-BOOK™

Your job is to create a small book that explains everything you know about integers. Essentially, you are creating a bunch of "Illustrated Math" pages that explain HOW to use integers and WHY the integer rules work.

The book should be roughly 4-5 pages. Each page should have 2 example problems that are labeled and explained (with arrows or thought bubbles or listed steps).

- Basic Facts:**
- How to Add Integers
 - How to Subtract Integers
 - How to Multiply Integers
 - How to Divide Integers

- Math Models:**
- Chip Board (Red = NEG Black = POS)
 - Positive vs. Negative Army (cancelling out)
 - Numberlines or "Open" Numberlines
 - The "Double Negative" ("I'm NOT NOT going to do my HW." = I will.)
 - Temperature
 - Money (Have = + Owe = -)
 - Elevation
 - Lovers & Haters (for multiplication & division)

Examples of the Math Models:

Lovers & Haters:

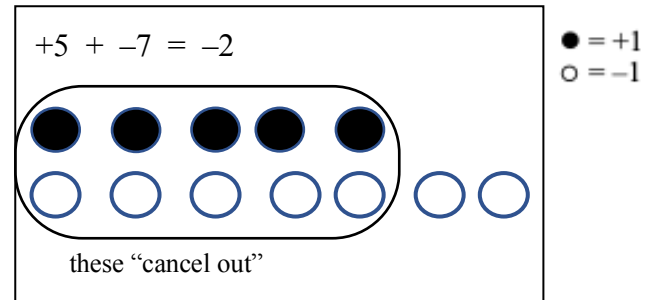
"If you love to love ... you're a lover."
 POS x POS = POS

"If you love to hate ... you're a _____."
 POS x NEG =

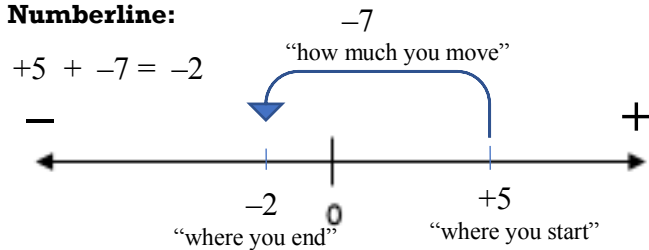
"If you hate to love ... you're a _____."
 NEG x POS =

"If you hate to hate ... you're a _____."
 NEG x NEG =

ChipBoard:



Numberline:



Double Negative (NOT NOT):

$$-9 - 4 = -5$$

$$-9 + 4 = -5$$

Integer Word Problem (temp or money or elevation):

Addition Rules:

POS + POS =

BIG POS + NEG =

BIG NEG + POS =

NEG + NEG =

Subtraction Rules:

BIG POS – SMALL POS =

SMALL POS – BIG POS =

POS – NEG =

BIG NEG – SMALL NEG =

SMALL NEG – BIG NEG =

NEG – POS =

Multiplication Rules:

POS × POS =

POS × NEG =

NEG × POS =

NEG × NEG =

Division Rules:

POS ÷ POS =

POS ÷ NEG =

NEG ÷ POS =

NEG ÷ NEG =

*HINT: a “big” number has a greater absolute value.
for example –11 is “bigger” than +9.

Exceeds Standards [4]

Meets Standards [3]

Below Standards [2]

Needs Improvement [1]

	<u>Exceeds Standards [4]</u>	<u>Meets Standards [3]</u>	<u>Below Standards [2]</u>	<u>Needs Improvement [1]</u>
Adding Integers	<ul style="list-style-type: none"> Lists the rules to add integers. Uses <i>two or more</i> math models to prove the work. 	<ul style="list-style-type: none"> The <i>two</i> examples are correct. Includes <i>at least one</i> math model to prove the work. 	<ul style="list-style-type: none"> Explanations are too <i>brief</i> or are <i>not clear</i>. 	<ul style="list-style-type: none"> The examples are <i>incorrect</i>.
Subtracting Integers	<ul style="list-style-type: none"> Lists the rules to subtract. Uses <i>two or more</i> math models to prove the work. 	<ul style="list-style-type: none"> The <i>two</i> examples are correct. Includes <i>at least one</i> math model to prove the work. 	<ul style="list-style-type: none"> Explanations are too <i>brief</i> or are <i>not clear</i>. 	<ul style="list-style-type: none"> The examples are <i>incorrect</i>.
Multiplying Integers	<ul style="list-style-type: none"> Lists the rules to multiply. Uses <i>two or more</i> math models to prove the work. 	<ul style="list-style-type: none"> The <i>two</i> examples are correct. Includes <i>at least one</i> math model to prove the work. 	<ul style="list-style-type: none"> Explanations are too <i>brief</i> or are <i>not clear</i>. 	<ul style="list-style-type: none"> The examples are <i>incorrect</i>.
Dividing Integers	<ul style="list-style-type: none"> Lists the rules to divide. Uses <i>two or more</i> math models to prove the work. 	<ul style="list-style-type: none"> The <i>two</i> examples are correct. Includes <i>at least one</i> math model to prove the work. 	<ul style="list-style-type: none"> Explanations are too <i>brief</i> or are <i>not clear</i>. 	<ul style="list-style-type: none"> The examples are <i>incorrect</i>.
Presentation	<ul style="list-style-type: none"> The minibook shows <i>exceptional</i> effort and creativity. 	<ul style="list-style-type: none"> The minibook is <i>neat</i> and <i>creative</i>. 	<ul style="list-style-type: none"> The minibook shows <i>some</i> effort and creativity. 	<ul style="list-style-type: none"> The minibook appears <i>rushed</i> and/or <i>sloppy</i>.