

Cohen Middle School  
100 Robinwood Avenue  
Elmira Heights, NY 14903  
734-5078

Name: \_\_\_\_\_ Date: March 5, 2020 \_\_\_\_\_

Math:	Translating Real World Expressions nb 13:14 hmwk wkshk.
Social Studies:	- Review for midterm  HW: Midterm is Tomorrow 3/6
ELA:	Daily Warm Up "Predators" - 1st Read Vocabulary.com
Science	① Hand in Vocab Cartoon (Score it) ② Hand in Inv #4 Science NB, fully complete ③ Take Part II of Mid-term ④ Study w/ Peer for midterm Part I (FRIDAY)
Computer Apps/ Technology	



Review for Midterm 2019-2020  
MIDTERM IS FRIDAY MARCH 6<sup>th</sup>  
IT WILL COUNT AS TWO TEST GRADES

**Early Humans:**

- **History is the study of the past**
- **Culture is the knowledge, beliefs, customs, and values of a group of people.**
- **Archaeologists study the past based upon what is left behind.**
  - o **Objects leave clues to how people lived.**
- **Fossil is an imprint of something that once lived.**
- **Primary source is an account of an event created by someone who took part in or witnessed the event**
- **Secondary source is information gathered by someone who did not take part in or witness the event.**
- **Landforms are natural features of the land's surface**
- **Climate is the pattern of weather in a certain period of area over a long period of time.**
- **Hominid is an early ancestor of humans**
- **An ancestor is a relative who lived in the past**
- **Paleolithic era is the first part of the stone age**
- **People migrated out of Africa using land bridges or strips of land connecting two continents**
- **Mesolithic Era is the Middle Stone Age**
- **Neolithic Age is the New Stone age**
- 

**Ancient Mesopotamia**

- **Mesopotamia is known as the land between two rivers because of its location between the Tigris and Euphrates rivers**
- **Crops grew well in Mesopotamia because the farmland was fertile and water was nearby.**

- Mesopotamians used irrigation to bring water to an area of land.
  - They dug canals or man-made waterways.
- People settled where crops would grow, the population grew villages and cities began to form.
- Cities began to grow and walls were built to protect the inhabitants of the city-state from an attack.
- Sumerians were polytheistic and worshipped many gods.
  - They believed their gods had to be worshipped and pleased.
  - Sumerian priests interpreted the wishes of the gods and made offerings to them.
- Sumerians developed a writing system called cuneiform which was a form of picture writing using wedge shaped symbols.
- King Hammurabi and King Nebuchadnezzar ruled Babylon
  - Hammurabi had his code of laws
  - Nebuchadnezzar rebuilt Babylon to include the hanging gardens, to please his wife.
- Rule of Mesopotamia
  - Babylonians: Ruled by King Hammurabi and his code of laws
  - The Hittites and Kassites: ruled after
    - Hittites: master ironworking and use the chariot
    - Assyrians used iron weapons and chariots like the Hittites
    - Phoenicians used trade to grow more powerful.
      - Cedar wood was there best Trade item

## **Ancient Egypt**

- The Nile River flows through two important regions in Egypt called upper and Lower Egypt.
- The Nile river was well suited for settlement because it had areas for farming
- Egypt was ruled by dynasties or a series of rulers from the same family.
- The first pharaoh wore a double crown to symbolize the unification of Upper and Lower Egypt.
- The Pharaoh had absolute power because they were viewed as a god.

- Pharaoh would be blamed if crops did not grow
- Pyramids were built as royal tombs
- A dynasty is a series of rulers from the same family
- Egyptian religion had a huge belief in the afterlife.

## **Ancient India**

- India is known as a subcontinent which is a large landmass smaller than a continent.
- India is separated from the rest of Asia by the Himalayas
- India's climate is dominated by monsoons. Seasonal wind patterns that occur in a regular pattern
- The Indus River valley became ideal for farming, due to the melting snow in the Himalayas melting and flooding the Indus River leaving behind silt.
- Aryan people abandoned their nomadic lifestyle, because they began to farm.
- They set up the Caste system in Ancient India which had very strict rules.
  - Brahmins-priests
  - Kshatriyas were rulers and warriors
  - Vaisyas – farmers and traders
  - Sudras- workers and servants
- Hindu beliefs say that good or bad actions have on a person's soul, will decide how you are reborn.
- Siddhartha Gautama founder of Buddhism wanted to find ways to eliminate human suffering.
- The guiding principles of Buddhism are the four noble truths
- Siddhartha Gautama left home at age 30 to find answers to his questions about human life
- Siddhartha gained insight into human suffering after meditating under a tree
- Buddhism was against the caste system
- Theravada Buddhists follow the teachings exactly
- Mahayana Buddhists interpret the Buddha's teachings to help reach nirvana.



My Name: \_\_\_\_\_

Study Partner: \_\_\_\_\_

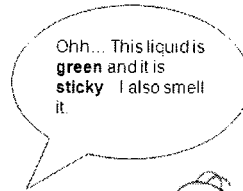
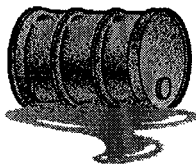
## Observation

Observation: when studying something, describe only facts that you can see, touch, smell and hear (five senses). You are not making any guesses.

**THIS IS NOT AN  
OPINION!!**

Qualitative observations describe a quality on object possesses (such as texture, color, smell, taste...)

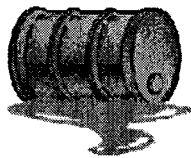
Quantitative observations involve numbers!! This includes how many or a specific measurement.



## Inference

Inference: using your observations to make a **guess** about an object or an outcome

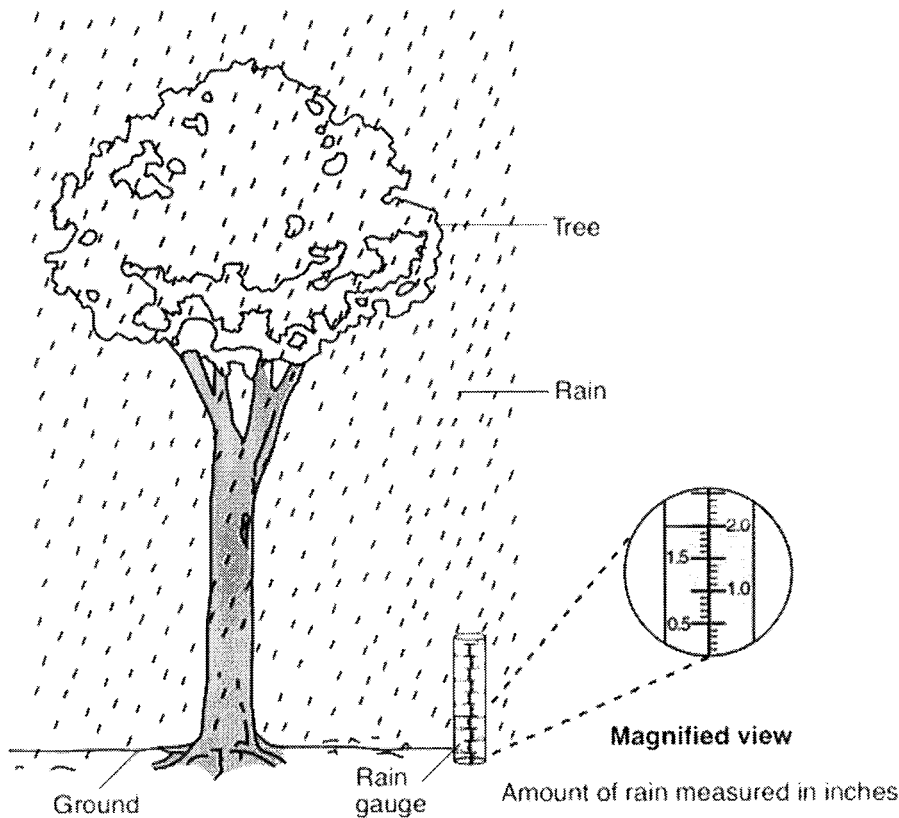
**THIS CAN BE A  
SCIENTIFIC OPINION**



Based on my **observations**, I **think** that this can is old and is leaking a toxic substance.



1. Observation VS. Inference



**LIST THREE**

Qualitative Observations

---



---



---

**LIST TWO**

Quantitative Observations

---



---



---

**EXPLAIN ONE**

Inference

---



---



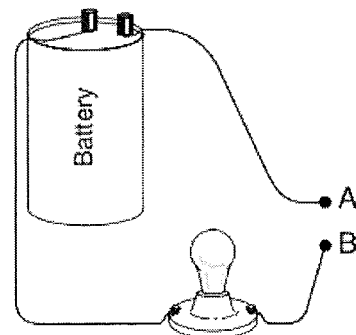
---

2. Study Force & Motion Vocabulary

(Attract / Repel)



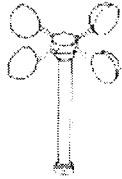
3. Is the following circuit OPEN or CLOSED? What would you do to create the opposite effect?





Wind speed	climate	wind direction	air pressure
Weather	temperature	precipitation	temperature
			day length

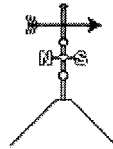
4. Atmosphere & weather (Use your Severe Weather Web Quest to look these up)  
Match the tool with the weather factor / condition it measures:



Anemometer  
(1)



Barometer  
(2)



Weather vane  
(3)



Rain gauge  
(4)

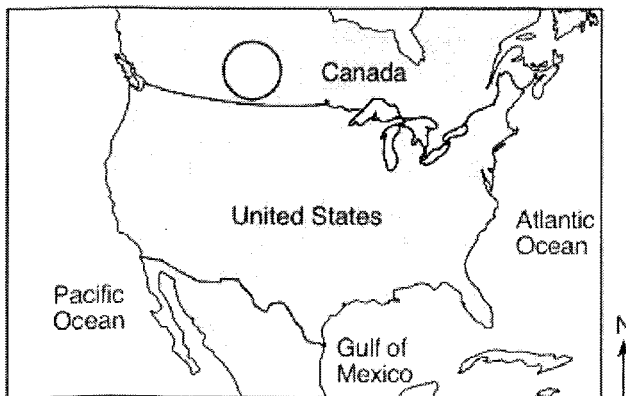
\_\_\_\_\_

5. weather patterns that happen from season to season and year to year are known as: \_\_\_\_\_

6. The condition of Earth's atmosphere at a given time and place is \_\_\_\_\_

7. A person who studies the Weather is called a \_\_\_\_\_

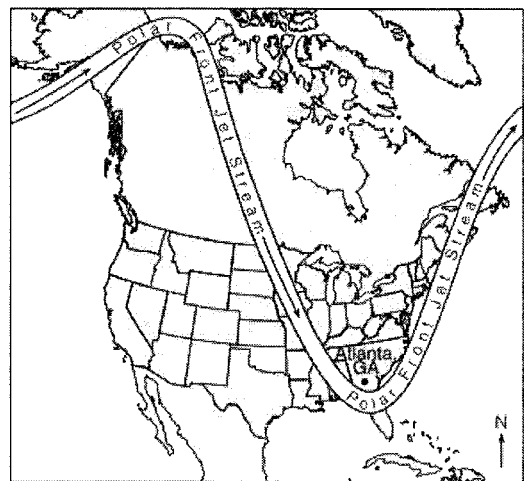
8. Look at the map of N. America below. How would you describe the air mass in Canada?



temperature conditions (warm or cold)  
moisture conditions (wet or dry)

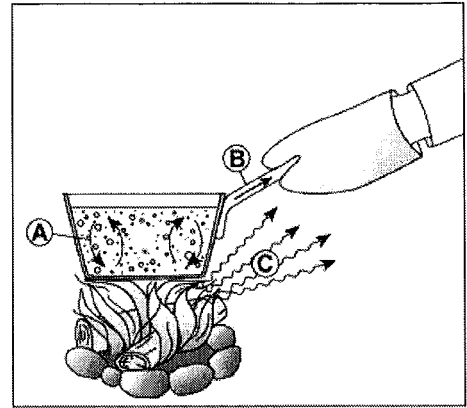
Look at the Polar Jetstream below. How would you describe the air mass in Atlanta?

temperature conditions (warm or cold)  
moisture conditions (wet or dry)

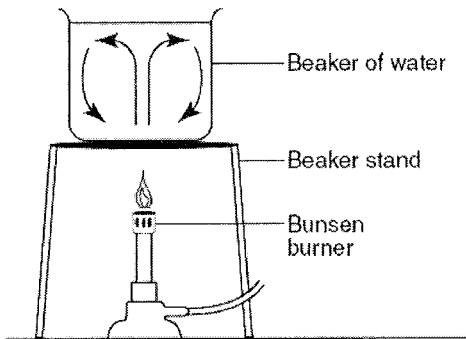


9. Which types of heat transfer are happening at each location? (use your Inv #4 Vocab)

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_



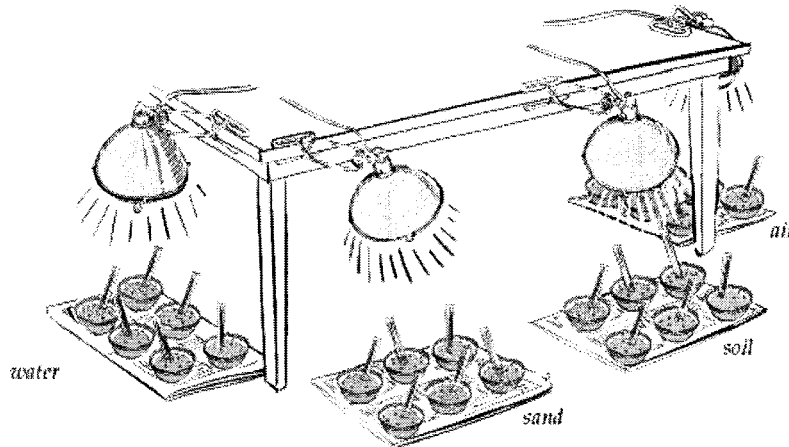
10. Which types of heat transfer are happening at each location?



11. Which type of heat transfer came from the lamp? \_\_\_\_\_

12. Which type of heat transfer occurs within the materials as particles collide?

\_\_\_\_\_



13.

My Name: \_\_\_\_\_

Study Partner: \_\_\_\_\_

# Observation

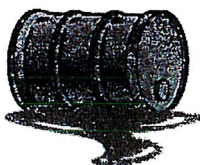
Observation: when studying something, describe only facts that you can see, touch, smell and hear (five senses). You are not making any guesses.

**THIS IS NOT AN OPINION!!**

Qualitative observations describe a quality an object possesses (such as texture, color, smell, taste...)

Quantitative observations involve numbers!! This includes how many or a specific measurement.

Ohh... This liquid is green and it is sticky I also smell it.



# Inference

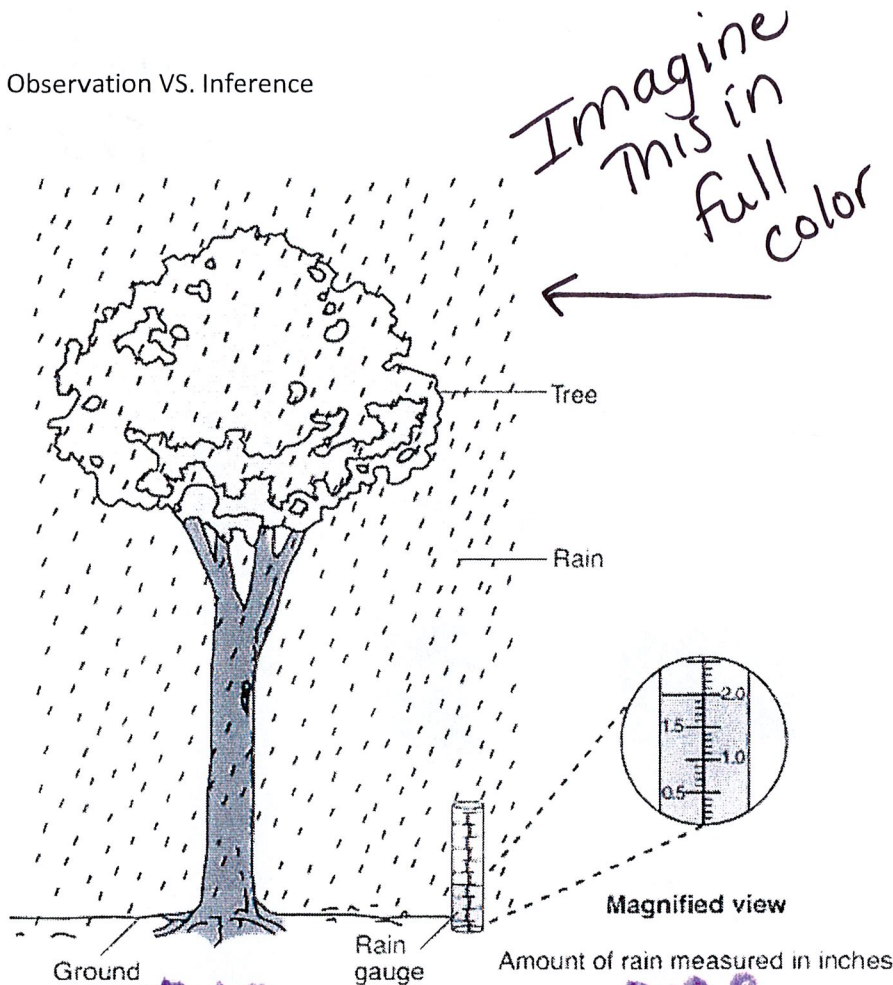
Inference: using your observations to make a **guess** about an object or an outcome

**THIS CAN BE A SCIENTIFIC OPINION**

Based on my observations, I think that this can is old and is leaking a toxic substance.



1. Observation VS. Inference



**TWO**  
LIST THREE

Qualitative Observations

- Tree leaves
- rain drops
- tree roots
- green leaves

**ONE**  
LIST TWO

Quantitative Observations

- 2.0 in rain
- (If able, we could measure the height or distance around the tree).

EXPLAIN ONE

Inference

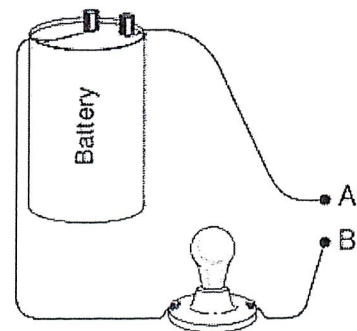
- If must be above freezing b/c its rain not snow
- Green leaves = must be summer

(Attract / Repel)

**REPEL LIKE**  
**Attract different**

3. Is the following circuit OPEN or CLOSED? What would you do to create the opposite effect?

**Connect w/ metal/ Switch**

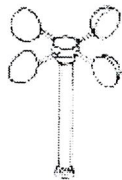


Wind speed	climate	wind direction	air pressure
Weather	temperature	precipitation	temperature
			day length

- cloud

4. Atmosphere & weather (Use your Severe Weather Web Quest to look these up)  
Match the tool with the weather factor / condition it measures:

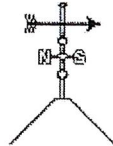
thermometer



Anemometer  
(1)



Barometer  
(2)



Weather vane  
(3)



Rain gauge  
(4)

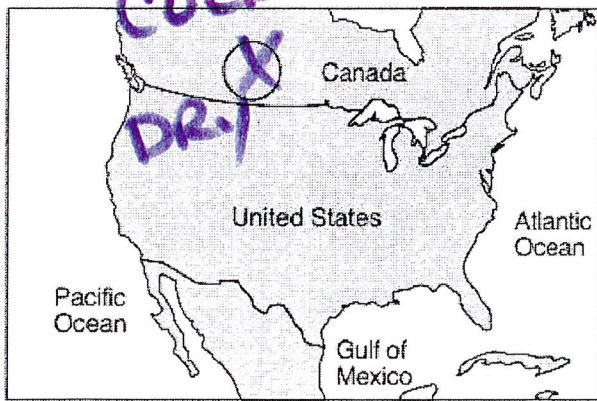
Wind speed   Air pressure   Wind direction   precipitation

5. weather patterns that happen from season to season and year to year are known as: Climate

6. The condition of Earth's atmosphere at a given time and place is weather

7. A person who studies the Weather is called a meteorologist

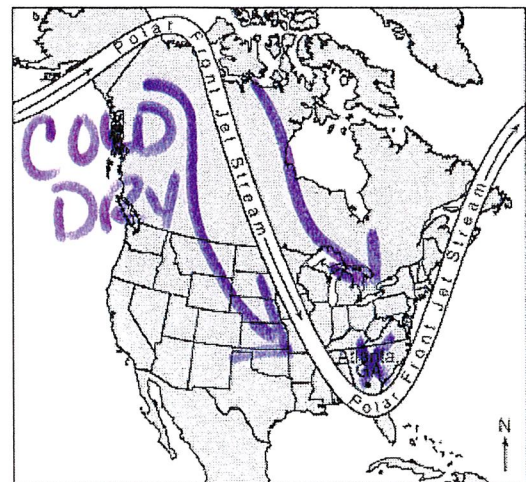
8. Look at the map of N. America below. How would you describe the air mass in Canada?



temperature conditions (warm or cold)  
moisture conditions (wet or dry)

Look at the Polar Jetstream below. How would you describe the air mass in Atlanta?

temperature conditions (warm or cold)  
moisture conditions (wet or dry)



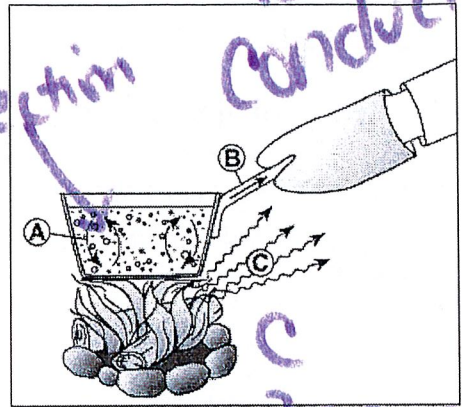
COLD = Polar  
DRY = Landmass

The Jet stream is bringing COLD, DRY air from Canada.

9. Which types of heat transfer are happening at each location? (use your Inv #4 Vocab)

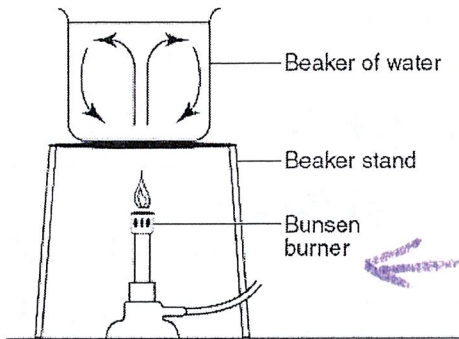
- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

A. Convection  
B. Conduction



C. RADIATION

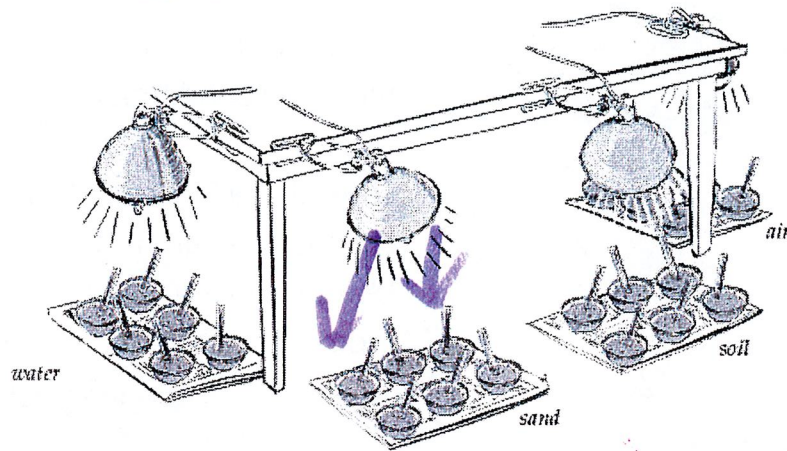
10. Which types of heat transfer are happening at each location?



Convection  
Conduction (touch)  
Rays Radiation

11. Which type of heat transfer came from the lamp? RADIATION

12. Which type of heat transfer occurs within the materials as particles collide? CONDUCTION



13.

# TRANSLATING REAL-WORLD EXPRESSIONS

## TRANSLATING EXPRESSIONS

- Expressions are frequently used in real life to describe situations involving Comparisons.
- When translating verbal descriptions to algebraic expressions, ask yourself:
  - What is being compared?
  - What will the variable represent?

Write an expression to represent the comparisons below.

<p>1. Simon has <u>four more</u> cookies than Lucy.</p> <p>Simon's vs. Lucy's c</p> <p>a. Lucy is represented by: <u>l</u></p> <p>b. How can you explain the number of cookies Simon has compared to Lucy?</p> <p><u>Simon = 4 + l</u></p>	<p>2. Gary weighs twelve pounds <u>less than</u> Jeff.</p> <p>gary's weight vs Jeff's w.</p> <p>a. Jeff is represented by: <u>j</u></p> <p>b. How can you explain the number of pounds Gary weighs compared to Jeff?</p> <p><u>gary = j - 12</u></p>
--	--

\* Variables should Represent the part of the situation in which you are given the least amount of information.

Practice defining a variable and translating the verbal expression to an algebraic expression.

#3 The width of a box is twice as long as its length.

width vs length

DEFINE A VARIABLE	<u>l = length of box</u>
REPRESENT THE LENGTH	<u>l</u>
REPRESENT THE WIDTH	<u>2l</u>

#4 The 80 brownies sold at the bake sale were half the number #b vs # r.c. of rice crispy treats sold.

DEFINE A VARIABLE	<u>r = rice crispy</u>
REPRESENT THE # OF BROWNIES	<u>80 = 1/2 r</u>
REPRESENT THE # OF RICE CRISPY TREATS	<u>r</u>





Complete the table below for each of the real-life situations.

7.1.1

**#5** Allison sold <sup>12+</sup> more boxes of cookies for the fundraiser than Evangeline.

*A's C vs E's cookies*

DEFINE A VARIABLE	$e = \text{Evang. Cookies sold}$
REPRESENT ALLISON	$12 + e$
REPRESENT EVANGELINE	$e$

**#6** Xavier's 85 on his math test was 37 points less than twice the grade on his English test.

*Math test vs. Eng. test*

DEFINE A VARIABLE	$e = \text{eng. test grade}$
REPRESENT THE MATH TEST	$2e - 37$
REPRESENT THE ENGLISH TEST	$e$

**#7** It costs \$100 to rent a skating rink, plus \$8 per person.

DEFINE A VARIABLE	
COST OF N NUMBER OF PEOPLE	
COST OF 36 PEOPLE	

*\$388*

**#8** Ender has \$365 in his savings account and spends \$32 per week.

*\$ in savings account vs. weekly spending*

DEFINE A VARIABLE	$w = \# \text{ of weeks}$
AMOUNT IN SAVINGS AFTER W WEEKS	$\$365 - 32w$
AMOUNT IN SAVINGS AFTER 9 WEEKS	$365 - 32(9)$ $365 - 288$ <b>(77)</b>

*Substitute for w*

*Paid AS*

**#9** The cost of an item with a \$12 shipping fee

DEFINE A VARIABLE	
COST OF AN ITEM WITH SHIPPING	
COST OF AN \$85 ITEM	

**#10** Anthony has half as many video games as Guero.

DEFINE A VARIABLE	
REPRESENT ANTHONY	
REPRESENT GUERO	

Summarize today's lesson:



# TRANSLATING REAL-WORLD EXPRESSIONS

\* use your  
nb pp.  
9, 10, 13, 14

The variables represent information about people who visit the public library. Use the information to answer the questions below.

## PUBLIC LIBRARY VISITORS

$m$ = number of men	$r$ = number of people with red hair
$w$ = number of women	$b$ = number of people with brown hair
$c$ = number of children under 12	$t$ = total books checked out

1. Write a verbal description to describe the algebraic expression.

a.  $w + m$  \_\_\_\_\_

b.  $\frac{(m+w)}{c}$  \_\_\_\_\_

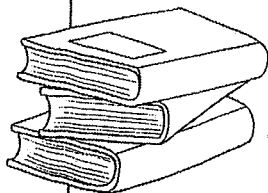
c.  $(w + m + c)$  \_\_\_\_\_

2. Write an algebraic expression for each verbal description.

a. total number of people under 12 \_\_\_\_\_

b. the number of people who do not have brown hair \_\_\_\_\_

c. the average number of books checked out per person \_\_\_\_\_



Complete the tables below for each of the real-life situations.

**#3** There were three times as many beavers as elephants.

DEFINE A VARIABLE	
REPRESENT THE NUMBER OF BEAVERS	
REPRESENT THE NUMBER OF ELEPHANTS	

**#4** A children's ticket was \$6 less than an adult ticket.

DEFINE A VARIABLE	
COST OF AN ADULT TICKET	
COST OF A CHILD TICKET	

