

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

Name: _____ Date: December 12, 2019 _____

Math:

More Equations with Ratios

notes 65^d, 66 homework: wkshpt & Test Tuesday

Social Studies:

Harrappa and Mohenjo Daro

HW: Monsoons

ELA:

Daily Warm Up

Emoji Interpretation (Quiz grade)

Science

① Study FORCE #2 concepts (word sort, etc)

② Review lab p.7 + Q's p8 - FINISH NB#2

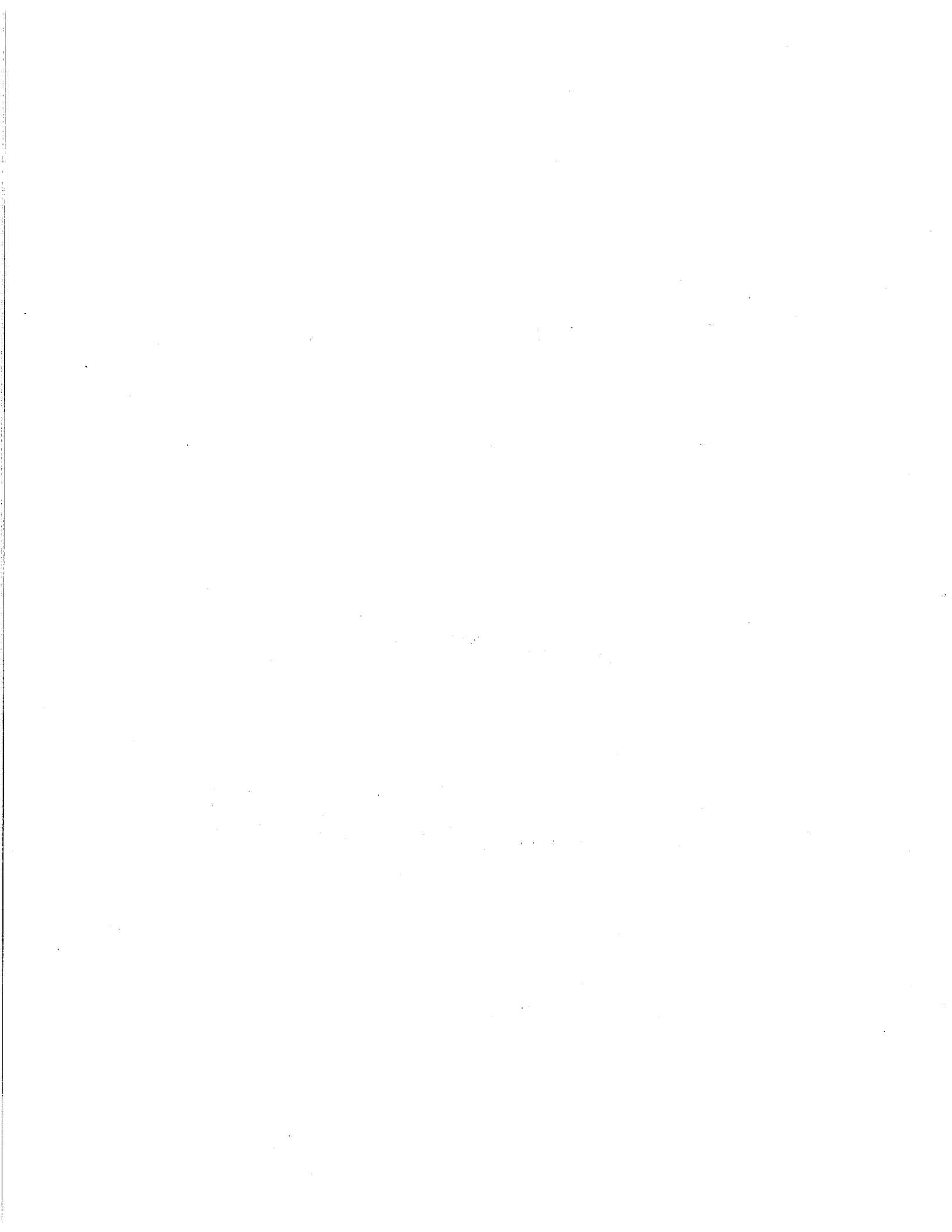
③ Watch Brain pop "Magnetism"

④ Draw and describe Magnetic Force (Claim/evidence)

Computer Apps/ Technology

P. 9

⑤ Test Friday



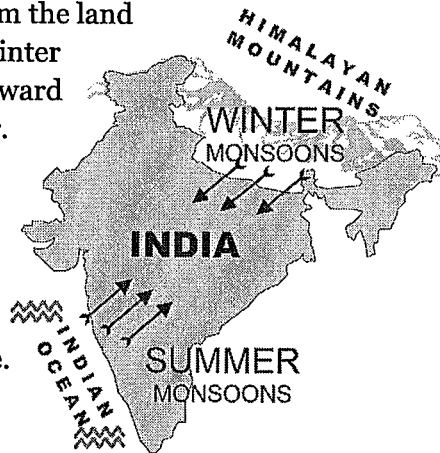
Name: _____

Date: _____

Monsoons

Monsoons dominate India's climate. Monsoons are strong, often violent winds that change direction with the season. Monsoon winds blow from cold to warm regions because cold air takes up more space than warm air. So, monsoons blow from the land toward the sea in winter and from the sea toward land in the summer.

India's winters are hot and dry. The monsoon winds blow from the northeast and carry little moisture. India's winters are hot because the mountains of the Himalayas form a barrier that prevents cold air from passing onto the subcontinent. Additionally, most of India lies between the Tropic of Cancer and the equator, so the sun's rays shine directly on the land. The



temperature can reach as high as 110°F during the Indian winter.

The summer monsoons roar onto the subcontinent from the southwest. The winds carry moisture from the Indian Ocean and bring heavy rains from June to September. The torrential rainstorms often cause violent landslides. Monsoon rains have swept away entire villages.

Despite the potential for destruction, many Indian people welcome the summer monsoons. Farmers depend on the rains to irrigate their land. In addition, the monsoons provide water power that generates electricity.

Pakistan is drier than India. The summer monsoon winds in India bring moisture from the Indian Ocean; on the other hand, Pakistan is north of the ocean and receives much less rain. The Thar Desert lies on the border between India and Pakistan. It covers more than 77,000 square miles, which is an area about the size of Nebraska.

Fill in the Blanks

A monsoon is a w_____ that changes d_____ with the s_____.
India's m_____ winds create h_____, dry winters and r_____ summers. Indian farmers *w_____ the s_____ monsoons, although they can bring great d_____ to their land. The m_____ rains i_____ their land. Also, a great deal of India's e_____ is generated by monsoon r_____ as they flow from the H_____.

Answer in complete sentences

*1. When is the best time to visit India? Explain your answer.

2. Why are the summer monsoons welcomed in India?

*This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.



Big Question: How can we describe magnetic force?

Include drawings with your claims/evidence

Claim, Evidence, and Reasoning:

use vocabulary bank

-magnetism, magnetic field, poles

attract, repel -

- what happens to the field/poles when a magnet breaks?

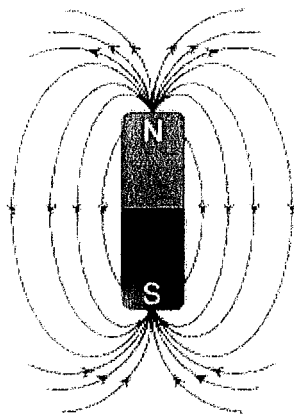
DUE Friday
12/13/19

Name: _____

Date: ~~Wednesday 12/10/19~~ Period 2 3 5 6 7

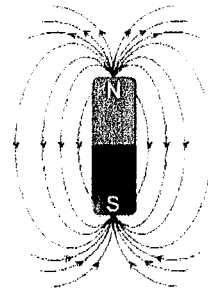
Read: "Magnetic Force" pages 19-22 only. Answer the Before you read first, and then find supporting evidence as you read each section. Be prepared to discuss this article on Wednesday in class.

1. **BEFORE:** What image do you see?
2. What do the N and the S represent?



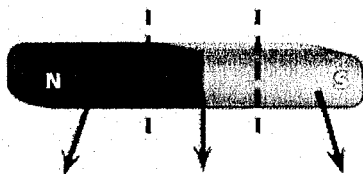
AFTER I READ...

"Magnetism extends out from
a and
into the surrounding
to form what is called
The magnetic
force is strongest near the magnet's
and
."



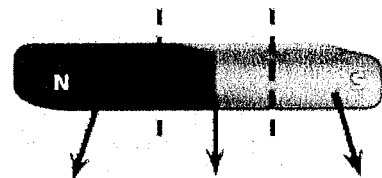
3. BEFORE I read...

Magnets Cut Into Pieces

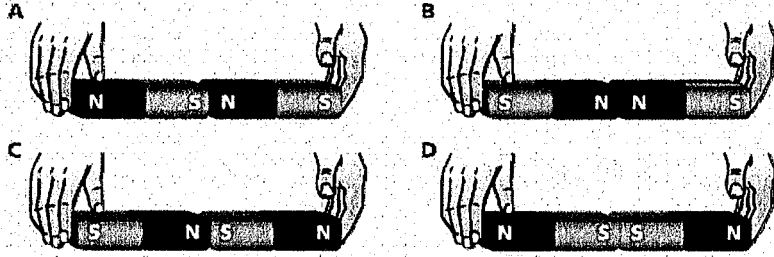


AFTER I read...

Magnets Cut Into Pieces



Magnets Held Together



repel
Attract

These pairs of magnets are held together in different configurations. What will happen when they are released?

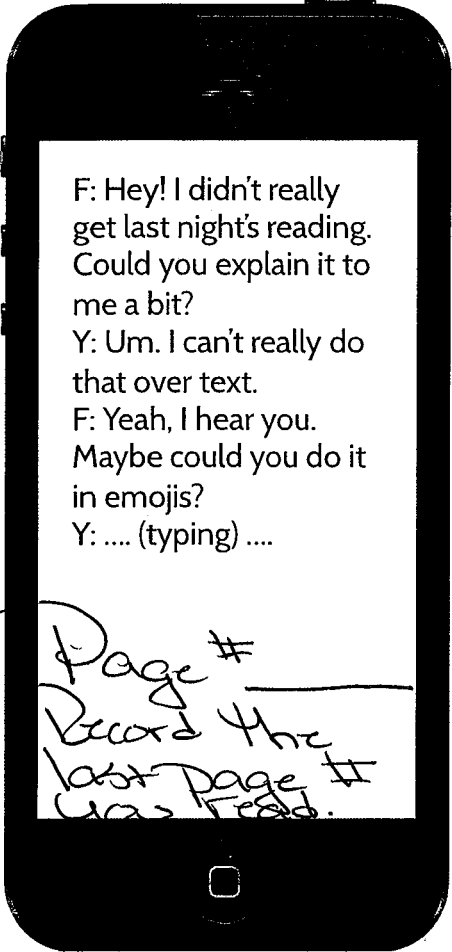
explain

AFTER I read: DRAW & LABEL what you now know that **When** magnets are released (page 21),

Force NB #2 Magnetism Vocabulary

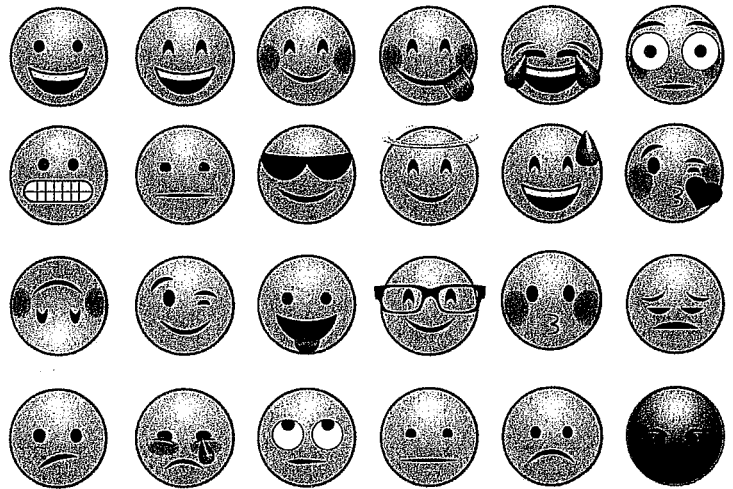
Attract	To pull toward each other
Repel	To push away from each other
Pole	the end of a magnet
Magnetic field	An area of magnetic influence around a magnet
Magnetism	A property of certain kinds of materials that causes them to attract iron or steel
Temporary magnet	A piece of iron that behaves like a magnet only when its under the influence of an external magnetic field
Compass	An instrument (tool) that uses a free-rotating magnetic needle to show direction
Gravitational Field	An invisible area of gravitational influence around a mass





An Emoji Interpretation

Imagine you were texting a friend a series of emojis to represent ~~last night's reading~~ ^{your reading}. What four would you choose to represent what happened? Draw your four emojis in the four small boxes below, then explain your choices in the larger boxes. Be sure to include ~~at least~~ ^{at least} one quotation to justify each emoji, along with your explanation.



Warm up

A baker uses 3 eggs to make 6 muffins. The ratio table below shows the ratio of eggs to muffins.

Eggs (E)	Muffins (M)
3	6
9	

$\frac{1}{2}$

_____ muffins equals _____ times 3 eggs

To write this as an equation, we can use "M" for muffins and "E" for eggs. We'll also substitute the word "equals" with an equal sign and "times" with a multiplication sign.

So, this equation gets written as _____

Now let's try creating another equation by looking at the table from another direction.

Eggs (E)	Muffins (M)
3	6
6	12
9	18

Let's see how eggs "E" relate mathematically to muffins "M". Here's the same table again:

Look at the first ratio again. How do 3 eggs relate to 6 muffins? What is the relationship between 3 and 6?

Since 3 is half of 6, we could write a second equation like this:

_____ Eggs equals _____ of 6 Muffins

So, this equation gets written as: _____

If you look at the other ratios, you'll see that this equation is always true. Eggs are always _____ of muffins.

RATIOS ON THE COORDINATE PLANE

2.65

MULTIPLE REPRESENTATIONS

- Ratios can be represented with tables, graphs, equations, on the coordinate plane, and with _____.

Use the graph below to complete the missing information in the ratio table. Then, write a verbal description and equation that represent the information.

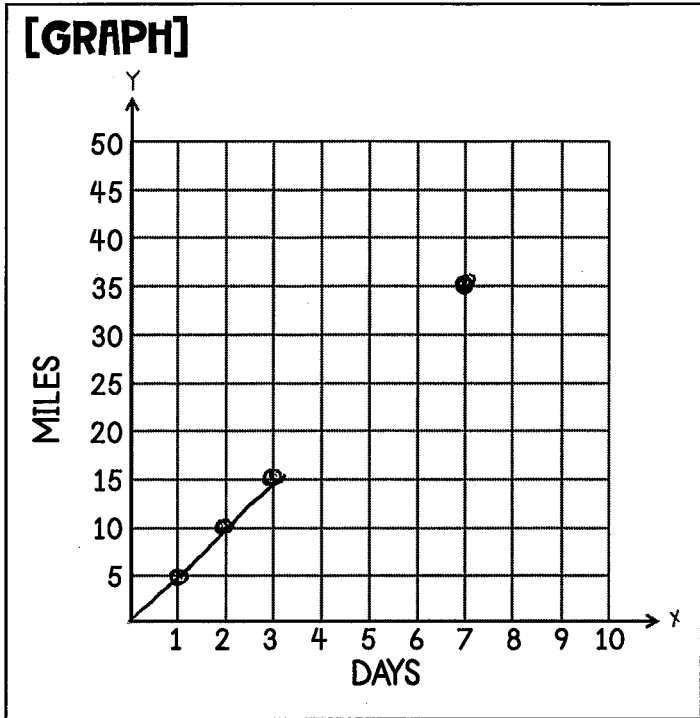
<p>[GRAPH]</p>	<p>[RATIO TABLE]</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>HOURS (H)</th> <th>[process]</th> <th>MILES (M)</th> </tr> </thead> <tbody> <tr><td>1</td><td>1(50)</td><td>50</td></tr> <tr><td>2</td><td>2(50)</td><td>100</td></tr> <tr><td>3</td><td>3(50)</td><td>150</td></tr> <tr><td>4</td><td>4(50)</td><td>200</td></tr> <tr><td>5</td><td>5(50)</td><td>250</td></tr> <tr><td>6</td><td>6(50)</td><td>300</td></tr> <tr><td>7</td><td>7(50)</td><td>350</td></tr> <tr><td>8</td><td>8(50)</td><td>400</td></tr> <tr><td>9</td><td>9(50)</td><td>450</td></tr> </tbody> </table>	HOURS (H)	[process]	MILES (M)	1	1(50)	50	2	2(50)	100	3	3(50)	150	4	4(50)	200	5	5(50)	250	6	6(50)	300	7	7(50)	350	8	8(50)	400	9	9(50)	450
HOURS (H)	[process]	MILES (M)																													
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6	6(50)	300																													
7	7(50)	350																													
8	8(50)	400																													
9	9(50)	450																													
<p>[VERBAL DESCRIPTION]</p> <p>The car travels 50 miles per hour.</p>	<p>[EQUATION]</p> <p>$M = 50H$ $H = \frac{1}{50}M$</p>																														

- What is the ratio of the number of hours to the number of miles?
1:50
- How many hours will it take to travel 300 miles?
6:300
- If this continued with the same ratio, then how many miles would be traveled in 15 hours?
 $m = 50h$ $m = 50(15)$ $m = 750$
- What does the ordered pair (9, 450) represent in this situation?
9 hours they travels 450 miles



Do do

Practice using the given information to complete the table, equation, graph, or verbal description.



[RATIO TABLE]

DAYS (D)	[process]	MILES (M)
1	1.5	5
2	2.5	10
3	3.5	15
7	7.5	35

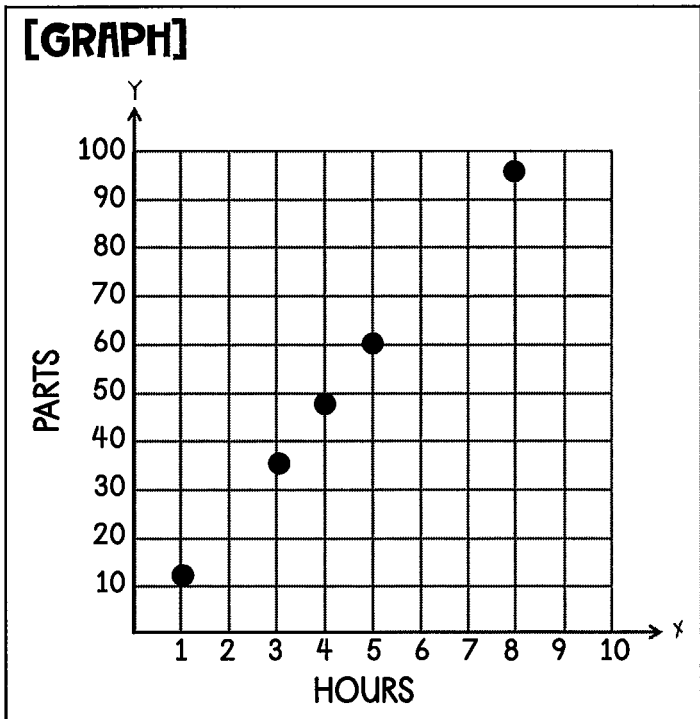
[VERBAL DESCRIPTION]

A bike rider graphs his training for the week. He trains by riding 5 miles each day.

[EQUATION]

$$m = 5d$$

$$d = \frac{1}{5}m$$



[RATIO TABLE]

HOURS (H)	[process]	# OF PARTS (P)
1		
3		
4		
5		60
8		

[VERBAL DESCRIPTION]

[EQUATION]



RATIOS ON THE COORDINATE PLANE

Complete the missing information in the chart below. Then, answer the questions.

<p>[GRAPH]</p> <p style="text-align: center;">COOKIES</p> <p style="text-align: center;">TIME (HOURS)</p>	<p style="text-align: center;">[RATIO TABLE]</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">HOURS (H)</th> <th style="padding: 5px;">[process]</th> <th style="padding: 5px;">COOKIES (C)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td>4</td><td> </td><td>300</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	HOURS (H)	[process]	COOKIES (C)													4		300															
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<p>[VERBAL DESCRIPTION]</p>	<p style="text-align: center;">[EQUATION]</p>																																	

1. What is the ratio of cookies to hours that the baker is able to produce?

2. How many hours does it take to bake 225 cookies?

3. If the baker continued with the same ratio, then how many cookies would she be able to make in 10 hours?

4. What does the ordered pair (4, 300) represent in this situation?

