

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

Name \_\_\_\_\_ Date January 9, 2020 \_\_\_\_\_

<p>Math: Comparing Unit Rates</p> <p>Homework: test corrections due &amp; wksht</p>
<p>Social Studies: Ancient India classwork</p> <p>Homework: Aryans and Vedas</p>
<p>ELA: Daily Word Ladder Theme vs Main Idea Group activity</p>
<p>Science: Hand in "Elevator to Space" • New NB "ATMOSPHERE" Pages 1-5 (LAB) <sup>Pressure</sup> • HW (only if) - ATMOSPHERIC LAYERS from <del>Wed.</del> <sup>TUESDAY</sup></p>
<p>Computer Apps/Technology</p> <p>Homework: Blue Ribbon Labeling Activity due Fri.</p>



# Reference Sheet

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

Date: \_\_\_\_\_

## Comparing Unit Rates

- Unit rate compares a quantity to 1.
- Equivalent rates have the same unit rate.
- Determine if each pair of rates is equivalent.

<p>\$60 for 75 cookies \$72 for 90 cookies</p> $\frac{\$60}{75c} = \frac{\$x}{1c}$ $x = \$0.80$	<p>25 beats in 20 seconds 75 beats in 50 seconds</p> $\frac{25b}{20s} = \frac{x b}{1s}$ $x = 1.25 \text{ beats}$
$=$	$\frac{75b}{50s} = \frac{x b}{1s}$ $x = 1.5 \text{ beats}$

- To compare two or more rates, find the unit rate of each.
- Then, determine which is better, faster, Cheaper
- When you find the price per item, it is called unit price or unit cost.
- When finding unit cost, the price is always the numerator.
- Mrs. Cooper grades 120 math tests in 3 hours. Mrs. Parker grades 100 math tests in 2 hours. Who grades math tests at a quicker rate?

Mrs. Cooper	compare	Mrs. Parker
Rate $\frac{120 \text{ math t.}}{3 \text{ hours}}$	$<$	Rate $\frac{100 \text{ math t.}}{2 \text{ hours}}$
Unit Rate $\frac{40 \text{ math t.}}{1 \text{ h}}$		Unit Rate $\frac{50 \text{ math t.}}{1 \text{ h}}$

- Betsy and Catalina start a business making bracelets. Betsy works for 8 hours and makes 20 bracelets. Catalina makes 12 bracelets in 4 hours. Who makes more bracelets per hour?

$\frac{20b}{8h} = \frac{x b}{1h}$ $x = 2.5 \text{ bracelets}$	$<$	$\frac{12b}{4h} = \frac{x b}{1h}$ $x = 3 \text{ bracelets}$
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# RATES AS COMPARISONS

7.69

Think of a time when you had to compare two things in order to make a decision. What helped you make that decision?

## PRICING

The unit price can help us determine the better value for our money.



1. A twelve-pack of Orange Crush is priced at \$3.00. A six-pack is priced at \$1.75. Which is the better value?

$$\frac{\$3.00}{12p} = \frac{\$x}{1p}$$

$$x = \$0.25$$

$$\frac{\$1.75}{6p} = \frac{\$x}{1p}$$

$$x = \$0.29$$

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2. Folgers Coffee is priced at \$12.88 for 80 cups of coffee, and Seattle's Best is priced at \$9.00 for 50 cups. Which brand of coffee is the better value for each cup?



## SPEED

By finding the unit rate, we can compare the Speed of objects.

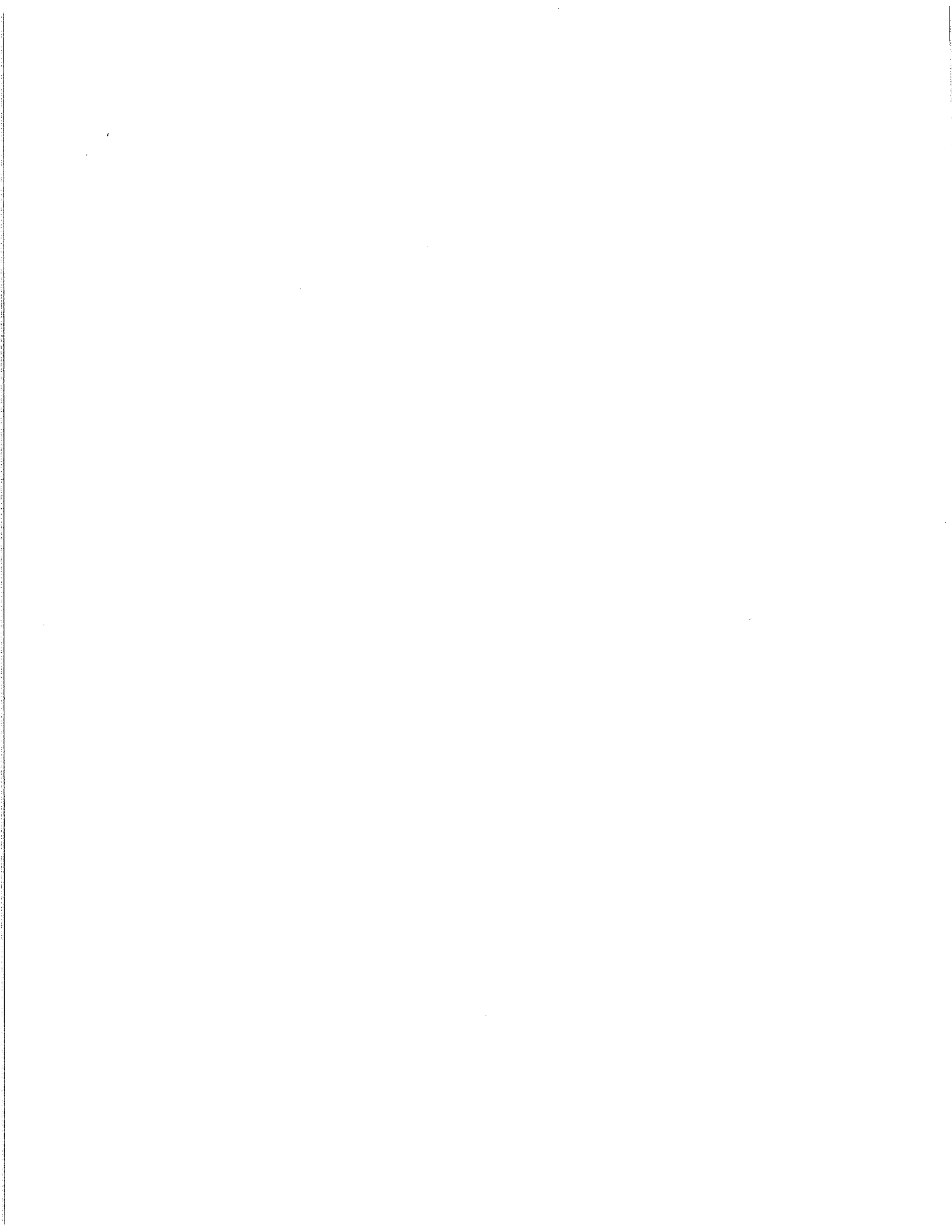
3. Hunter jogs 4 miles in 30 minutes. Ryan jogs 7 miles in 48 minutes. Who jogs the fastest?

$$\frac{4 \text{ mi}}{30 \text{ min}} = \frac{x \text{ mi}}{1 \text{ min.}}$$

$$x = 0.133$$

$$\frac{7 \text{ mi}}{48 \text{ min}} = \frac{x \text{ mi}}{1 \text{ min.}}$$

$$x = 0.145...$$



Use your understanding of rate to answer questions 4-5.

4. The Olympic record for the men's 100m freestyle is 47 seconds. The Olympic record for the women's 50m freestyle is 24 seconds. What was each rate of speed? Which record is the faster speed?

$$\begin{array}{l} \text{M} \\ \frac{100\text{m}}{47\text{s}} = \frac{x}{1\text{s}} \end{array} \quad \left( \frac{2.12\text{ m}}{1\text{s}} \right) \quad \begin{array}{l} \text{W} \\ \frac{50\text{m}}{24\text{s}} = \frac{x\text{m}}{1\text{s}} \approx \frac{2.08\text{m}}{1\text{s}} \end{array}$$

$x \approx 2.12 \dots > x \approx 2.08 \dots$

5. Anna can type 123 words in 3 minutes. Caroline can type 220 words in 5 minutes. Who can type the fastest?

### OTHER COMPARISONS

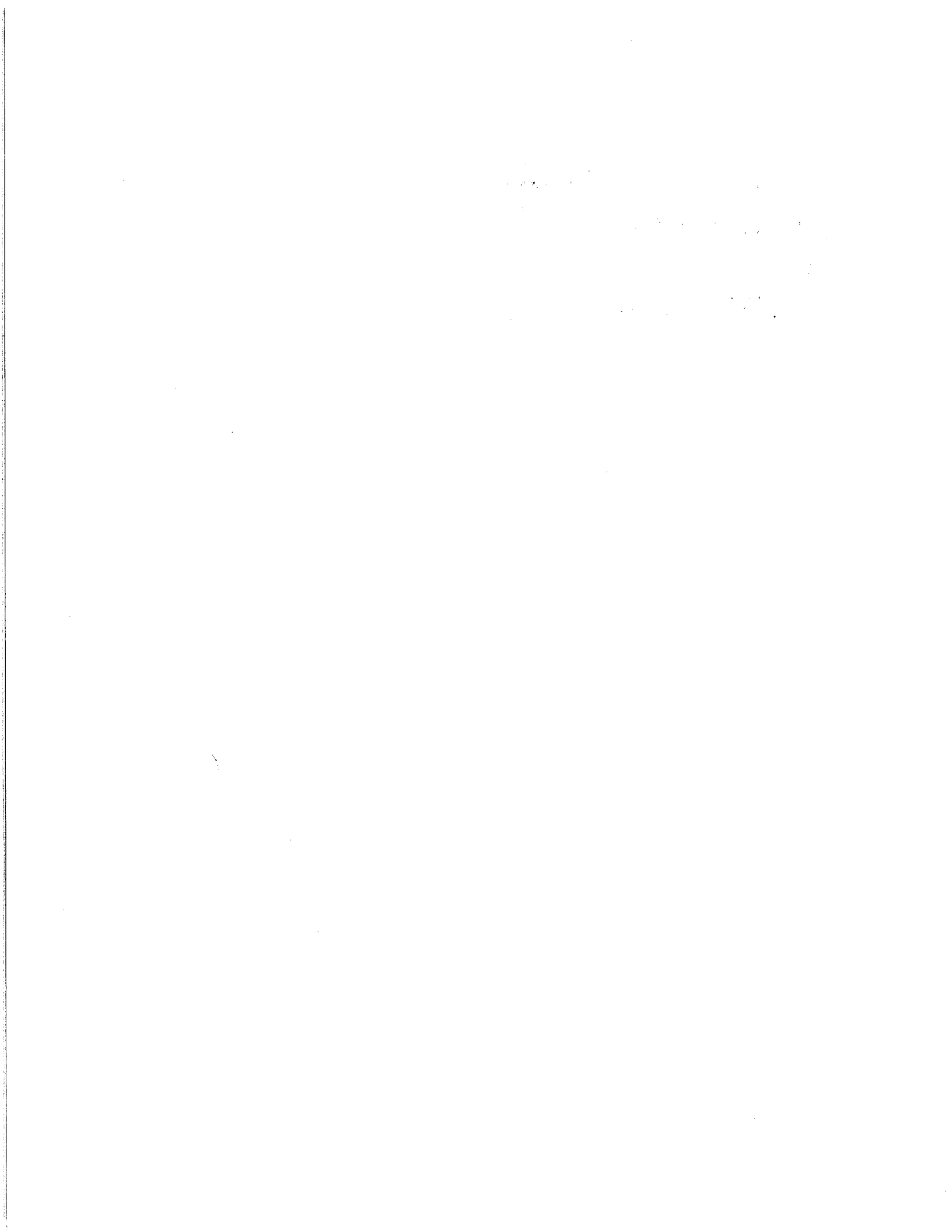
6. A contractor has 12 gallons of paint which will cover 2,712 square feet. Which of the following rates best represents the relationship between the number of square feet and the number of gallons of paint?

- A. 226 gallons of paint per square foot
- B. 2,712 gallons of paint per square foot
- C. 226 square feet per gallon of paint
- D. 12 square feet per gallon of paint

7. Northside High School is having a spaghetti dinner fundraiser. In order to advertise, students place flyers on neighborhood doors. Margie hands out 120 flyers in 2 hours. Jaxon hands out 18 flyers in 15 minutes. Which equation can be used to determine  $f$ , the number of flyers Jaxon handed out in two hours?

- A.  $\frac{18}{15} = \frac{f}{2}$
- B.  $\frac{120}{f} = \frac{2}{15}$
- C.  $\frac{18}{2} = \frac{f}{120}$
- D.  $\frac{120}{15} = \frac{f}{18}$

Summarize today's lesson:





Name \_\_\_\_\_

Period \_\_\_\_\_

**Homework: Comparing Rates**

1. Grocery Mart has cookies on sale for \$3 for 12 cookies. Food Shoppe has cookies on sale \$5.70 for 19 cookies. Which store has a better deal on cookies?

Target Statement \_\_\_\_\_

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**Show Work:**

2. Car A goes 640 miles on 20 gallons of gas. Car B goes 390 miles on 13 gallons of gas. Which car gets better gas mileage?

Target Statement \_\_\_\_\_

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**Show Work:**

3. 10 pounds of Cat Food A costs \$6.50. 20 pounds of Cat Food B costs \$14. Which cat food is a better deal?

Target Statement \_\_\_\_\_

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**Show Work:**



Name \_\_\_\_\_

Date \_\_\_\_\_

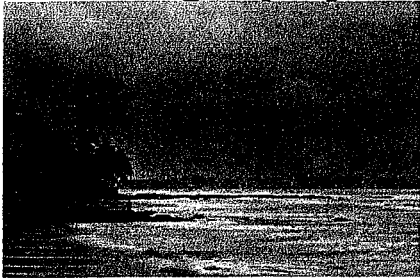
# Ancient India



See	Think	Wonder
What do you see in the image?	What do you think this image represents?	What questions do you have about this topic or image?

# Ancient India Reading Graphic Organizer

## Geography



People in Ancient India developed near the **Indus and Ganges rivers**. These rivers brought fertile soil which enabled them to grow crops and foods. **Monsoons** are seasonal winds that brought rains and helped to grow crops as well.

## Government

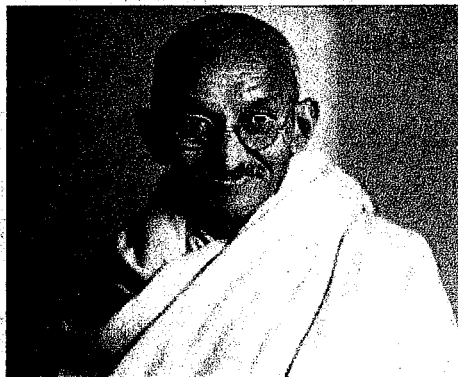


The people believed in the **Caste System** which is a social class structure. The Brahmin were the priests, the Kshatriya were the warriors, the Vaishya were the merchants and the Sudras were the Peasants.

## Religion



The people in Ancient India believed in **Karma and Dharma**. The people believed in Karma in which one's actions in life will determine their fate in the next life. In addition, **Hinduism** strongly believes in dharma which is a strong moral influence. Today in India, people continue to follow Hinduism.



## India

## Important Information



The **Caste System** is a social class structure that influences the political, social and economical lives of people. However, in some cases, the caste system was not fair to all woman. As a result, an influential man called **Gandhi** rose and spoke out for the rights of the people.

# Ancient India Reading Graphic Organizer Questions

## Geography



1. What roles did Monsoons and the Indus and Ganges rivers play in Ancient India?

## Religion



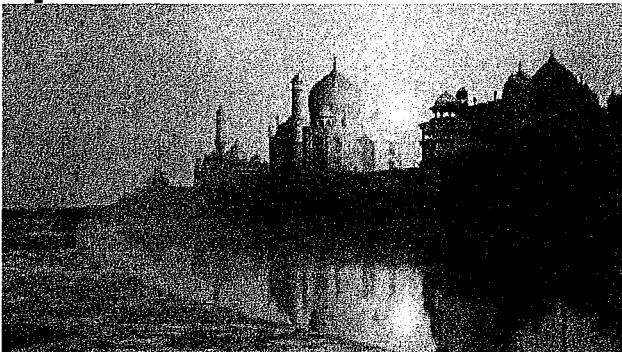
2. Why was Karma and Dharma important in Indian society?

## Government



3. Describe the Caste System of India.

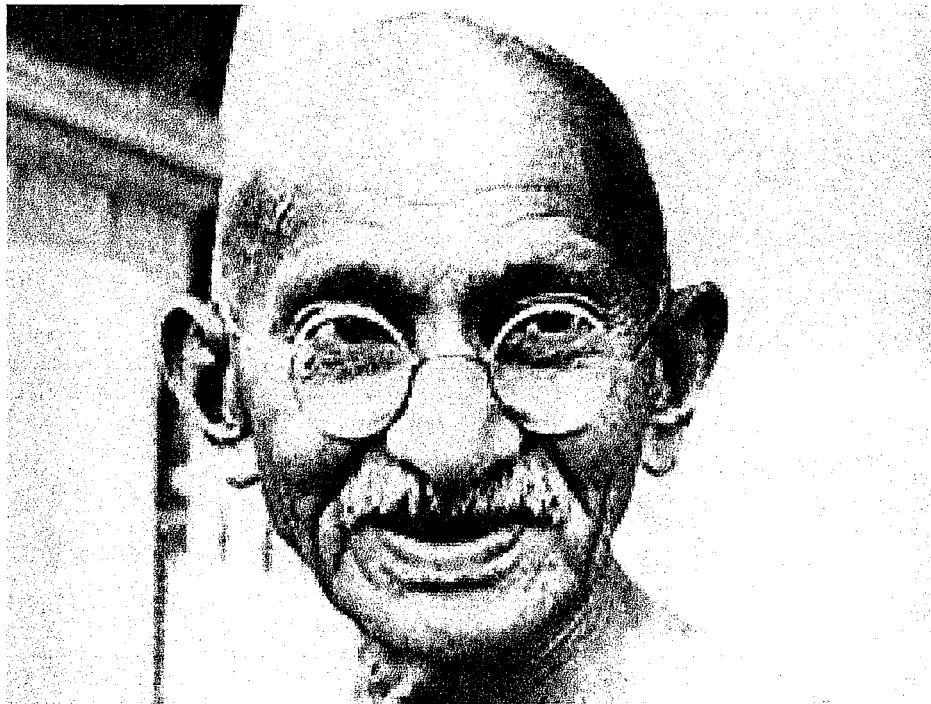
## Important Information



4. What role did Gandhi play in India?

Name \_\_\_\_\_

Date \_\_\_\_\_



EXIT  
TICKET

How did geography influence the development of Ancient India?

Why was Gandhi important?

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Name: \_\_\_\_\_  
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### The Aryans and the Vedas

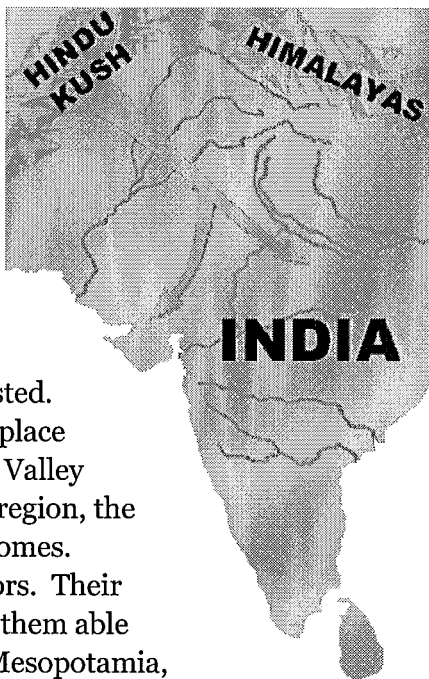
The Aryans were warriors that first appeared in northern India about 1500BCE. Most Aryans were nomadic cattle herders, who occasionally practiced slash-and-burn agriculture. A band of Aryans would slash, or cut, the trees on a plot of land to create a field. Months later, when the vegetation had dried, they set it on fire. The ashes left from the fire fertilized the soil for a few growing seasons. The Aryans would repeat the process in a new area once the soil had been exhausted. The Aryans did not remain in one place for long, so unlike the Indus River Valley culture that preceded them in the region, the Aryans did not build permanent homes.

The Aryans were skilled warriors. Their experience as cattle herders made them able horsemen. Like the Assyrians of Mesopotamia, the Aryans built chariots with spoke wheels, which were faster and easier to control than chariots with solid wheels.

Their military skills allowed bands of Aryans to subjugate the native Dravidian people and to spread their language and culture to most of the subcontinent.

About 1000BCE, the Aryans discovered iron ore in the Ganges River Valley. The heavy monsoon rains created dense vegetation in the valley. When the Aryans cleared the trees and brush, they discovered fertile land that allowed them to permanently farm along the banks of

the Ganges. Within 500 years, the several villages the Aryans had formed had grown into small states.



The Aryans spoke Sanskrit, a language that is similar to many European languages but unlike the Dravidian languages spoken in India before the Aryan invasion. The similarities with European languages suggest the Aryans came through the tall mountains of the Hindu Kush from present-day Afghanistan. However, we cannot be sure because there are no stories of a great journey to be found in the songs and poems of the Aryan people.

The first Aryans on the subcontinent could not read or write, but they did have a rich oral tradition. For hundreds of years, Aryan songs and epic poems were handed down by word of mouth.

About 500BCE, the Aryans began to compose a body of texts called Vedas based on their traditional stories. Veda is a Sanskrit word that means knowledge. The Rig Veda is a collection of more than 1000 poems that survives to this day. The influence of these stories of the Aryan people on the subcontinent is why historians label the period of Indian history lasting from about 1500BCE to 322BCE as the Vedic Age.

### Answer in Complete Sentences

\*1. Explain why the first Aryans did not remain in one place for very long.

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\*This is a higher order learning question. Any reasonable answer will be accepted.

Name: \_\_\_\_\_  
Period: \_\_\_\_\_

3



**Fill in the Blanks**

The Aryans were n\_\_m\_\_d\_\_c warriors who apparently reached the Indian s\_\_b\_\_o\_\_t\_\_n\_\_nt from Central \*A\_\_\_\_\_ by crossing the H\_\_n\_\_u Kush. The first Aryans on the Indian subcontinent were c\_\_tt\_\_e herders who occasionally practiced s\_\_a\_\_h-and-b\_\_\_\_n agriculture. The Aryans discovered i\_\_\_\_\_ ore in the G\_\_n\_\_es River Valley, so they fashioned \*m\_\_t\_\_l tools to clear the lush\* v\_\_g\_\_t\_\_t\_\_on that resulted from the annual m\_\_n\_\_o\_\_n rains. The fertile land along the Ganges allowed the Aryans to build permanent f\_\_\_\_\_.

The first Aryans were illiterate, but by about 500BCE, the Aryans composed a collection of stories, songs and scripture they called the V\_\_d\_\_s. Historians often label the period of 1500BCE to 322BCE the V\_\_d\_\_c Age because of the influence of the Aryans and their texts on the Indian subcontinent.

**Answer in Complete Sentences**

2. How did the first Aryans farmers fertilize their soil?

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\*3. Why was the discovery of iron in the Ganges River Valley significant to the Aryans?

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4. Why do many historians believe the Aryans migrated from Central Asia to the Indian subcontinent?

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5. What are the Vedas?

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6. Why do historians label the period of Indian history lasting from about 1500BCE to 322BCE as the Vedic Age?

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\*This is a higher order learning question. Any reasonable answer will be accepted.