

# 1.1 Unit Rates

## NOTES

### MATH 7

Write your questions here!



Who wins the race?



<b>RATES</b>	$\frac{120 \text{ miles}}{2 \text{ hours}}$	$\frac{24 \text{ dollars}}{3 \text{ hours}}$	80 miles every 4 gallons
<b>UNIT RATES</b>	$\frac{60 \text{ miles}}{1 \text{ hour}}$	$\frac{8 \text{ dollars}}{1 \text{ hour}}$	20 miles per gallon

#### PACMAN

Pacman goes 18 feet in 6 seconds.

Rate =

Unit Rate =

#### INKY

Inky the ghost goes 20 feet in 8 seconds

Rate =

Unit Rate =

**Write the following as a unit rate!**

Pacman eats 8 ghosts every 2 power pills

Sully spends 8 dollars every 3 hours at the arcade on Pacman.

**Which unit rate is easier to work with?**

#### DRIVING

90 miles every 2 hours

\_\_\_\_\_ miles per hour

Or

\_\_\_\_\_ hours per mile

#### JOB

Make \$12 dollars every hour

\_\_\_\_\_ hours per dollar

Or

\_\_\_\_\_ dollars per hour

#### COST

2 pound Kit Kat is \$12

\_\_\_\_\_ dollars per pound

Or

\_\_\_\_\_ pounds per dollar

### SUMMARY:

Now, summarize your notes here!



# 1.1 Unit Rates

# PRACTICE

The following rates are about the amount of snowfall. Determine if they are unit rates. Circle YES or NO.

1. $\frac{7 \text{ inches}}{8 \text{ days}}$	2. $\frac{6 \text{ inches}}{1 \text{ day}}$	3. 5 inches per day
Unit Rate? YES or NO	Unit Rate? YES or NO	Unit Rate? YES or NO
4. 5 inches per 2 days	5. $\frac{3}{2}$ inches per day	6. 0.35 inches per day
Unit Rate? YES or NO	Unit Rate? YES or NO	Unit Rate? YES or NO

Write the following as unit rates both ways. Determine which rate is better to use. Express as a fraction in simplest form!

7. Teri pays 4 dollars for 2 gallons of milk.  _____ gallons per dollar      _____ dollars per gallon  Which rate is better to use? Circle it above!	8. Patrick eats 12 crabby patties every 3 hours.  _____ patties per hour      _____ hours per patty  Which rate is better to use? Circle it above!
9. You babysit 5 hours and make 30 dollars.  _____ dollars per hour      _____ hours per dollar  Which rate is better to use? Circle it above!	10. The speed limit is 60 mph on the highway.  _____ miles per hour      _____ hours per mile  Which rate is better to use? Circle it above!
11. Sully visits the gym 3 times every 2 weeks.  _____ weeks per visit      _____ visits per week  Which rate is better to use? Circle it above!	12. BP sells 2 gallons of gas for 6 dollars.  _____ gallons per dollar      _____ dollars per gallon  Which rate is better to use? Circle it above!

**Write the following as a unit rate. Label your answer! Express as a decimal. Round to nearest hundredth.**

13. Thanos collects 2 infinity stones in 5 weeks.

14. Apple store gets 300 customers in 5 days.

15. Peanuts costs \$8.50 for 2 pounds.

**Determine which deal is better. Justify your solution using unit rates. Round to nearest hundredth.**

16.

STORE A  
5 dollars for  
4 markers

STORE B  
8 dollars for  
6 markers

STORE \_\_\_\_ is better because

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17.

STORE A  
6 ounces for \$2.40

STORE B  
3 ounces for \$1.80

STORE \_\_\_\_ is better because

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18.

STORE A  
32 ounce Gatorade for \$2.50

STORE B  
16 ounce Gatorade for \$1.50

STORE \_\_\_\_ is better because

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19.

STORE A  
3 months of service  
for 40 dollars

STORE B  
1 year of service  
for \$150

STORE \_\_\_\_ is better because

1. Express the following as a unit rate both ways.

“Tiger wins 5 tournaments every 2 years.”

\_\_\_\_\_ tournaments per year

\_\_\_\_\_ years per tournament

2. Write the following as a unit rate. Label your answer!

“It rains 5 inches every 3 hours.”

3. Mr. Kelly is thinking about joining Planet Fitness. He sees the sign below. Explain using appropriate vocabulary which is a better deal.



### EXIT TICKET –

Mr. Brust took his family to see the movie “Speed” because he thought it was a math movie about unit rates. He paid 34 dollars total for all 6 people in his family, 2 adults and 4 children. If adult tickets were 8 dollars each and children tickets were all the same price, how much does one children’s ticket cost?

Justify your solution!

