

Name _____ Period _____

Score: _____ / _____

Percent: _____ = $\frac{\quad}{10}$

UNIT 5: RATES AND
PROPORTIONS

ASSIGNMENT 5-1: UNIT RATES

**NO WORK = NO CREDIT
WORK IN PENCIL ONLY!**

Directions: Complete all problems. Make sure to show your work in solving the problem.

1. Granola comes in a 14 ounce box for \$2.00 or a 72 ounce box for \$9.00. Which is the better buy? Justify the better buy using unit rates.

2. Determine the missing number of grams of trail mix and explain how you know your answer is correct.

Grams of Trail Mix	Calories
50	150
150	450
300	900
500	1500
	1350

3. Find the unit rate (per bead) if it costs 12 cents for 20 beads.

Find the unit rate (per cent) if it costs 30 cents for 50 beads. (Be careful!)

Are these rates the same? Convince me with a written explanation.

4. Use the following table to determine the cost of 18 gallons of gas. Are you sure that your answer is correct? What makes you sure?

Gallons of Gas	Cost
3	8.55
5	14.25
8	22.80
13	37.05

5. Use the table below to find the cost of one movie ticket. How did you obtain that cost?

Movie Tickets	2	5	8	12
Total Cost	4	10	16	20

If you were responsible for purchasing tickets for a group of 24, how much would you charge each member of the group, including yourself?

6. The current 100-meter dash world record is 9.58 seconds. A local sprinter ran 55 meters in 5.1 seconds at a recent competition. Will he threaten to break the 100-meter dash world record? Explain your reasoning.

7. Ethan writes $\frac{1}{6}$ of a page in $\frac{1}{12}$ of a minute. How much time does it take him to write a full page?

8. Will fills $\frac{1}{2}$ of a water bottle in $\frac{1}{6}$ of a minute. How much time will it take him to fill the bottle?

9. Michael plays $\frac{1}{5}$ of a song in $\frac{1}{15}$ of a minute. How much time will it take him to play the entire song?