

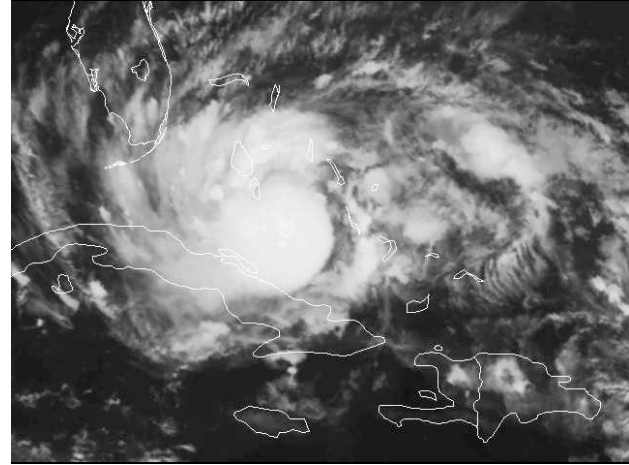
NAME: _____ Date: _____ Period: _____

Chapter #1: Prologue

Classwork: Test Prep Questions

OBSERVATION, INFERENCE or PREDICTION?

1. New Orleans will be directly affected by Rita. _____
2. All of the white in this image is cloud cover. _____
3. Rita will strengthen to a category 5 in 24 hours. _____
4. The image is in black and white. _____
5. Cuba is being flooded by Rita. _____



6. A meteorologist measures the highest wind speed in Rita to be 96 mph. Then the Hurricane Hunter airplane reports actual wind speeds of 111 mph. What was the meteorologists percent deviation ?
7. Rita's air pressure has dropped from 1009mb to 995mb in 24 hours. What is the rate of change in air pressure ?
8. Rita's wind speed has increased from 30 mph to 70 mph in 18 hours. What is the rate of change in wind speed ?
9. The National Weather Service has sent a weather balloon into Hurricane Rita. The mass of the balloon is 400,000 grams and the volume, when inflated, is $600,000 \text{ cm}^3$. What is the density of the balloon ? If the density of the air is 0.5g/cm^3 , will the balloon rise ? Explain.
10. If the mass remains 400,000 grams, what must the volume be to result in a density of 0.5g/cm^3 ?

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Below, you will find the actual tracking data for Rita. Draw two graphs, one plotting Time and wind speed and the other plotting time and pressure.

Tracking info for Tropical Storm Rita

Time	Lat	Lon	Wind(mph)	Pressure	Storm type
03 GMT 09/18/05	22.0N	69.7W	30	1009	Tropical Depression
09 GMT 09/18/05	21.7N	71.2W	30	1008	Tropical Depression
15 GMT 09/18/05	22.0N	72.2W	35	1008	Tropical Depression
21 GMT 09/18/05	22.2N	72.7W	40	1006	Tropical Storm
03 GMT 09/19/05	22.9N	73.3W	50	1002	Tropical Storm
09 GMT 09/19/05	22.7N	74.3W	60	998	Tropical Storm
15 GMT 09/19/05	23.0N	75.2W	65	994	Tropical Storm
21 GMT 09/19/05	23.3N	76.5W	70	995	Tropical Storm

