Name _____ period _____

Science Skills-7

Finding Trends in Data - Averages

Once a scientist has gathered data from an experiment, it must be analyzed. A scientist looks for patterns in the data. Patterns in the data are called trends. Scientists look for trends in several ways. One way a scientist can describe trends in the data are to calculate averages.

To calculate the average you must add all the results and divide this amount by the number of results.

Directions: Look at the tables below and determine the averages.

A botanist (a scientist that studies plants) measured the height of 5 bean plants after 4 weeks in an experiment. Here are the heights of the plants as the scientist recorded them:

Plant	**A**	**B**	**C**	**D**	**E**
Height in cm	11	15	10	18	20

1. What is their average height? _____

A zoologist (a scientist that studies animals) was counting the number of migrating birds in a rice field every Monday for a month. Here is what she found:

Type of Bird	**Week 1**	**Week 2**	**Week 3**	**Week 4**
Canadian Geese	205	310	100	50
Cow Bird	45	47	43	50
Whooping Crane	25	35	55	10

2. What is the average number of Canadian Geese for the month? _____
3. What is the average number of Cow Birds for the month? _____
4. What is the average number of Whooping Cranes for the month? _____

An epidemiologist (a scientist that studies how diseases become epidemics) studied the number of people who got sick with the flu in a 3 month time period. This is what she found:

Month	**December**	**January**	**February**
Number of people	5087	2476	3239

5. What is the average number of people who got the flu? _____

An astronomer (a scientist who studies the stars) was counting the number of asteroids found near Earth during a 6 month time period. This is what he found:

Month	Jan.	Feb.	March	Apr.	May	June
Number of asteroids	10	17	13	18	20	5

6. What is the average number of asteroids for the 6 months? _____
7. What is the average number of asteroids for Jan. -March? _____
8. What is the average number of asteroids for Apr.-June? _____

A paleontologist (a scientist who studies fossils) was trying to organize the fossils found in a museum. She started by counting how many were in each room. This is what she found:

Fossil type	Room A	Room B	Room C	Room D
Plant	15	114	0	34
Animal	265	89	78	12
Bacteria	14	12	1	3

9. What is the average number of plant fossils? _____
10. What is the average number of animal fossils? _____
11. What is the average number of bacteria fossils? _____

A meteorologist (a scientist who studies the weather) measured the high and low temperatures for a week. This is what he found:

Day of the Week	Low Temperature °F	High Temperature °F
Sunday	43	63
Monday	47	68
Tuesday	35	60
Wednesday	60	80
Thursday	63	75
Friday	45	65
Saturday	55	75

12. What is the average low temperature for the week? _____
13. What is the average high temperature for the week? _____