

# Weights and Drug Doses

NAME \_\_\_\_\_

The dosage chart below was prepared by a drug company for doctors who prescribed Tobramycin, a drug that combats serious bacterial infections such as those in the central nervous system, for life-threatening situations.

Weight (pounds)	Usual Dosage (mg)	Maximum Dosage (mg)
88	40	66
99	45	75
110	50	83
121	55	91
132	60	100
143	65	108
154	70	116
165	75	125
176	80	133
187	85	141
198	90	150
209	95	158

1. Use grid paper to plot the data (weight, usual dosage) and draw a best-fit line.
2. Plot (weight, maximum dosage) on the same axes. Draw a best-fit line.
3. Find the slope for each line. What do they mean, and how do they compare?
4. Write the equations of the two lines.
5. Are the two lines parallel? Why or why not?
6. Use a graphing calculator to plot (usual dosage, maximum dosage). Use the calculator to construct a regression line for this data set. How does this line compare to the two lines found in 1 and 2?