

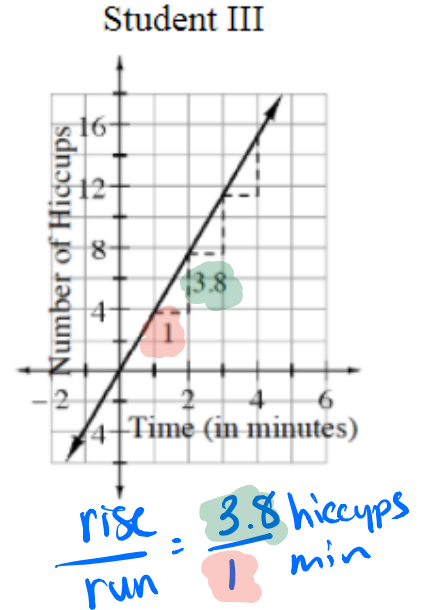
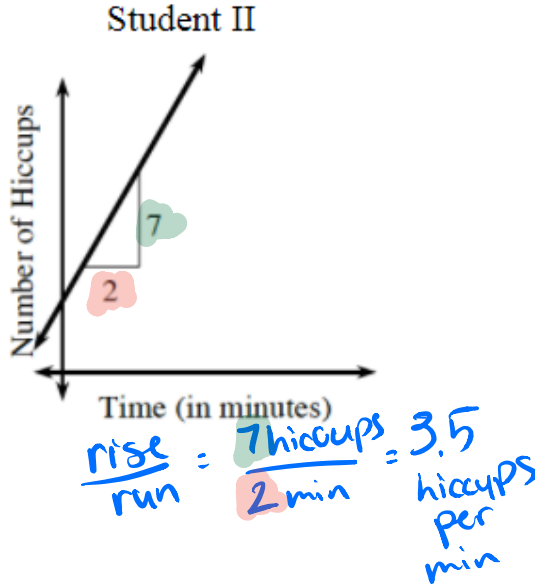
Comparing Slopes

Directions: Compare each student's slope and answer the questions on the back side. Mr. Ta's class has been struck with hiccups! Three students track their number of hiccups over time. Assume each student hiccups at a constant rate.

Student I

Time (in min)	Number of Hiccups
2	8
4	16
7	28

$\frac{\Delta y}{\Delta x} = \frac{8 \text{ hic}}{2 \text{ min}} = 4 \text{ hiccups per min}$



A. Which student has the most hiccups per minute? **Justify your answer.**

B. **Find the slope** that describes the rate of hiccups for each student. **What does the slope tell you about each student?**

Student I

Student II

Student III

$\frac{8}{2}$ or 4

$\frac{7}{2}$ or 3.5

$\frac{3.8}{1}$ or 3.8

4 hiccups per minute

3.5 hiccups per minute

3.8 hiccups per min

C. If you graphed a line for the student who hiccups 4 times per minute, would the line be steeper, less steep, or the same steepness as the line in the graph for Student II?

A student who hiccups 4 times per minute will have a line that is steeper than student 2 who hiccups 3.5 times a minute because 4 hiccups per minute has a larger slope

