

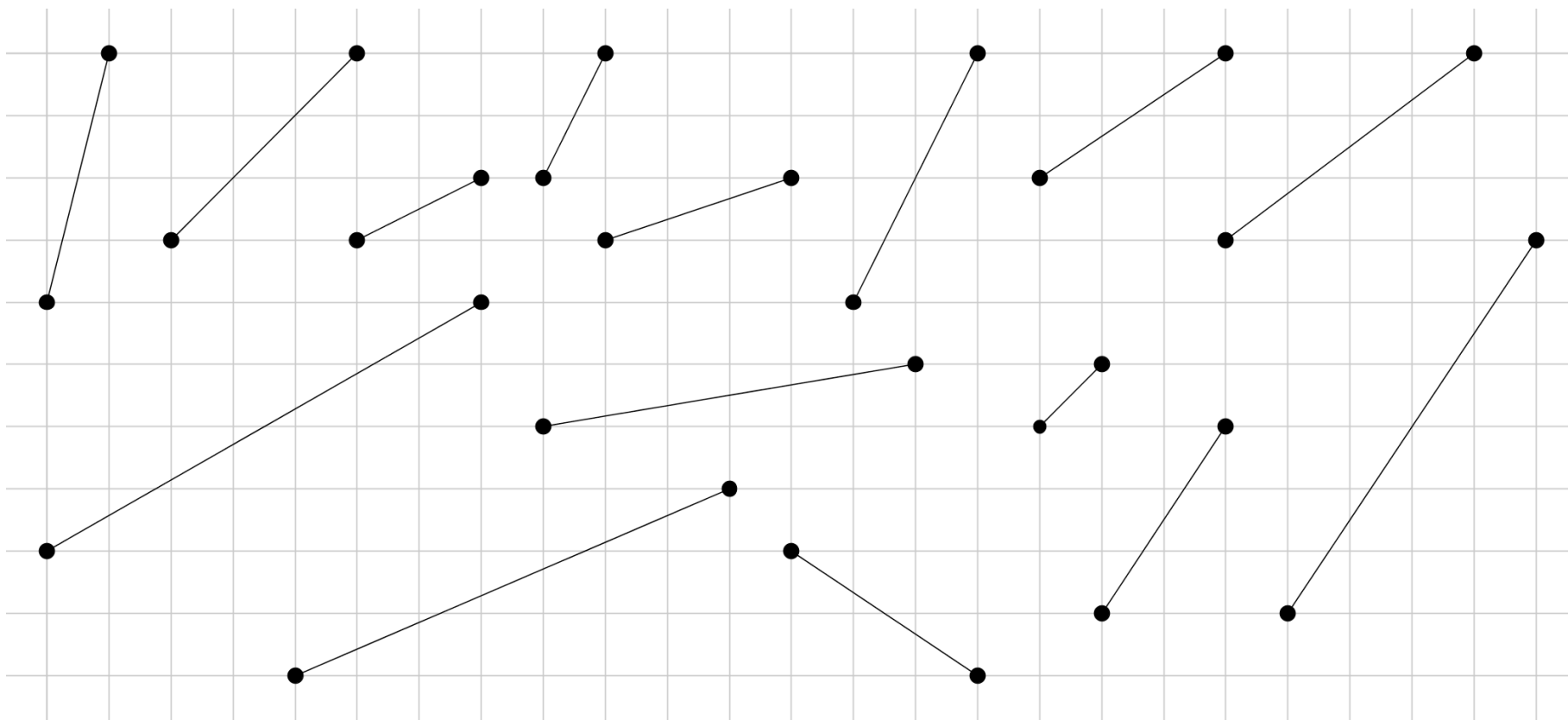
## Slope (Intuitive Introduction)

Name \_\_\_\_\_

The **slope of a line** (or ramp or hill) is **simply a number that tells us how steep that line (or ramp or hill) actually is.**

Go to [tube.geogebra.org](http://tube.geogebra.org). Under **Search Materials**, type **3205841**. (Or, use direct link: <http://tube.geogebra.org/m/3205841>).

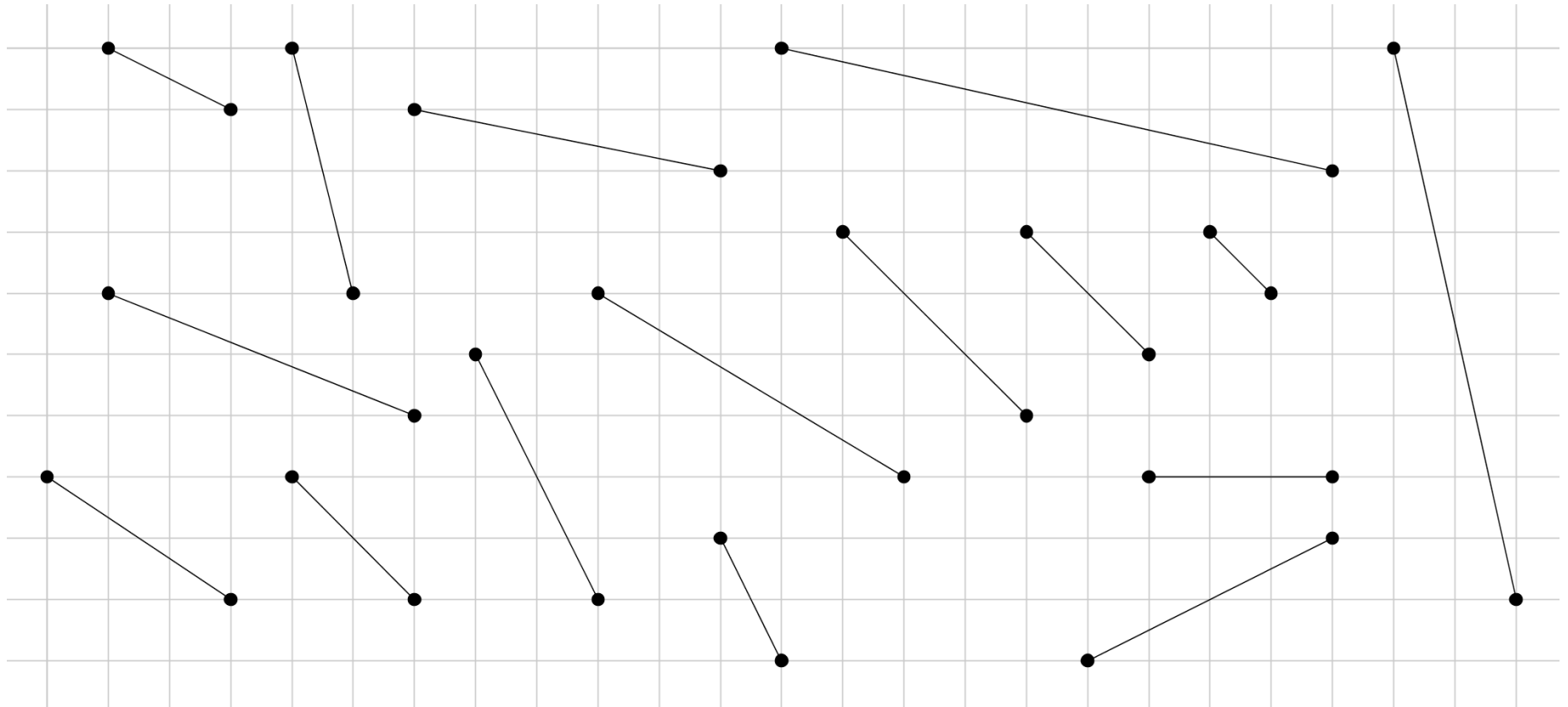
Move the **BIG PINK ENDPOINTS** of the ramp shown in the applet so that it matches a ramp displayed here on this sheet. As you do, record (write) the slope of each ramp next to it. Do this for all the ramps you see, and then answer the questions that follow.



**Question 1:** Of all the “ramps” above, which one had a slope that was different from all the others? Simply circle it.

**Question 2:** How does this ramp look “different” from all the others? Explain. Why do you think the slope **is** what it is?

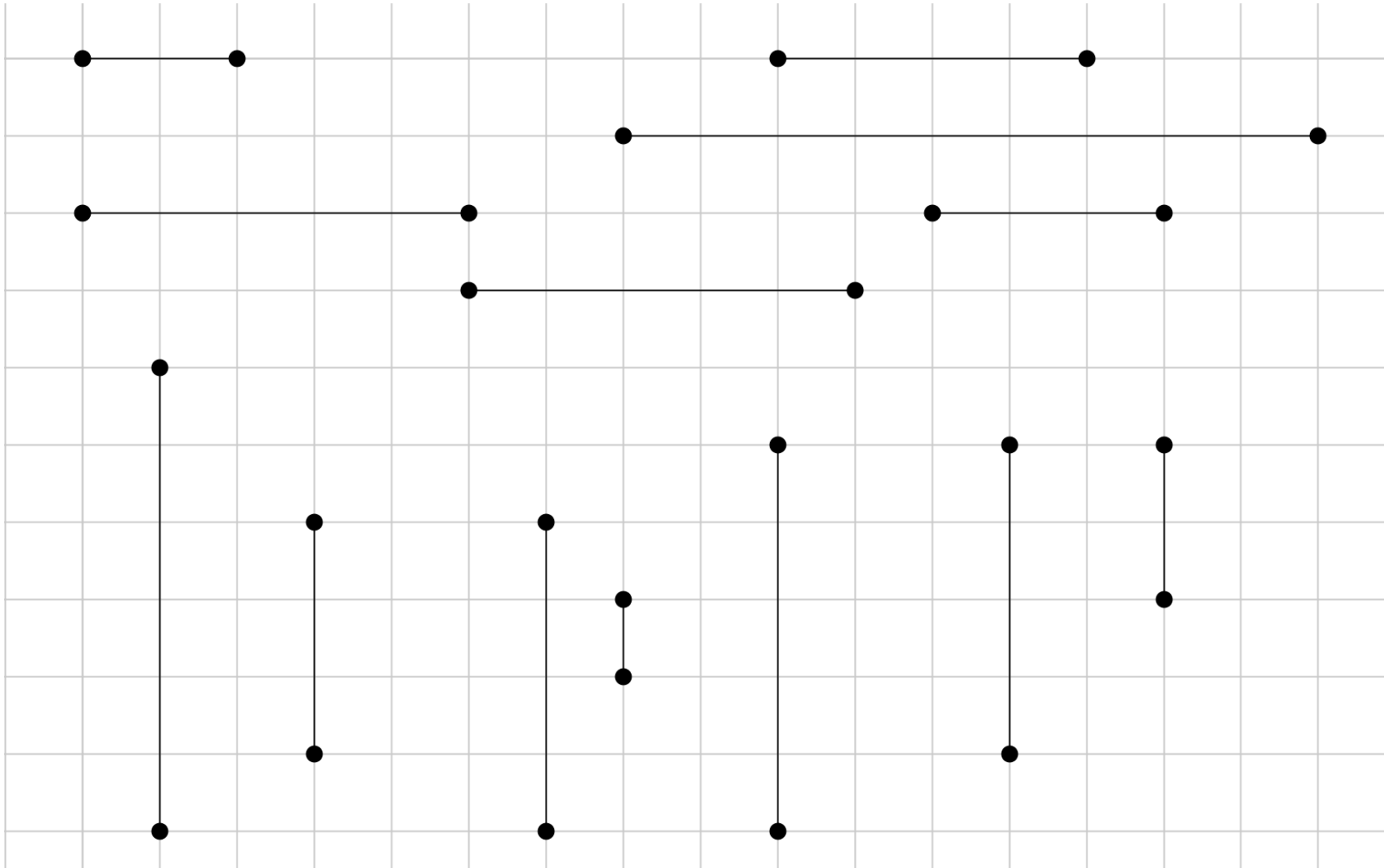
Again, use this same applet (found at <http://tube.geogebra.org/m/3003999>) to help you find the slope of each ramp shown below. Simply write the slope of each ramp next to it.



**Question 3:** Of all the “ramps” above, which two had slopes that were different from all the others? Simply circle them.

**Question 4:** How does these ramps look “different” from all the others? Explain. Why do you think these slopes are what they are?

Again, use this same applet (found at <http://tube.geogebra.org/m/3003999>) to help you find the slope of each ramp shown below. Simply write the slope of each ramp next to it.



5) From your observations, you should notice there are 4 main types of slope. What are they? List them here:

\_\_\_\_\_  
**(1<sup>st</sup> type)**

\_\_\_\_\_  
**(2<sup>nd</sup> Type)**

\_\_\_\_\_  
**(3<sup>rd</sup> Type)**

\_\_\_\_\_  
**(4<sup>th</sup> Type)**

6) What causes a line to have the **1<sup>st</sup> type of slope** you've listed above? Explain in detail.

7) What causes a line to have the **2<sup>nd</sup> type of slope** you've listed above? Explain in detail.

8) What causes a line to have the **3<sup>rd</sup> type of slope** you've listed above? Explain in detail.

9) What causes a line to have the **4<sup>th</sup> type of slope** you've listed above? Explain in detail.