

Name Key
Mrs. Roubos

Use
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Date _____
8R Period _____

Do Now

★ The slope of a line shows how the change in one variable relates to the change in the other variable.

$$\text{Slope} = \frac{\text{change in } y}{\text{change in } x}$$

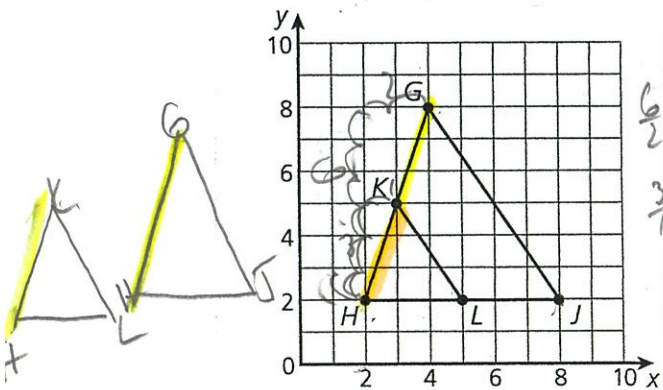
★ Slope is a constant since it is the same throughout a proportional relationship.

★ Corresponding sides have same slopes

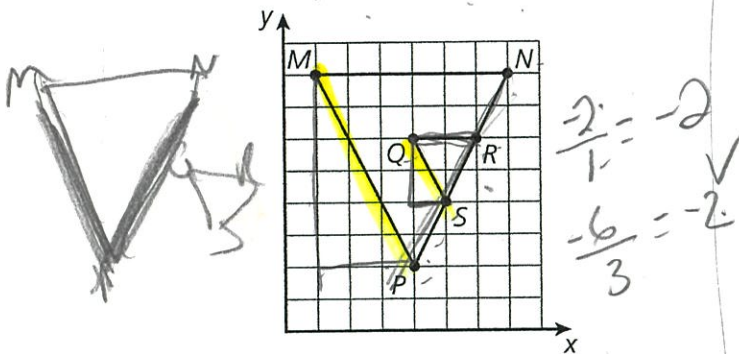
① Similar triangles GHI and KHL are shown on the coordinate plane.

Which statement must be true of the slope of \overline{GH} ?

- A It is the same as the slope of \overline{GJ} .
- B It is the same as the slope of \overline{KH} .**
- C It is twice the slope of \overline{GJ} .
- D It is twice the slope of \overline{KH} .



② Triangle MNP is similar to triangle QRS .



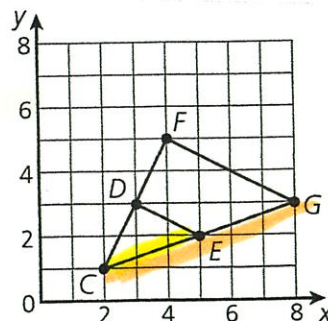
Which sides have the same slope?

- A \overline{MP} and \overline{QS}**
- ~~C \overline{QR} and \overline{QS}~~
- ~~B \overline{MP} and \overline{NP}~~
- D \overline{QR} and \overline{NP}

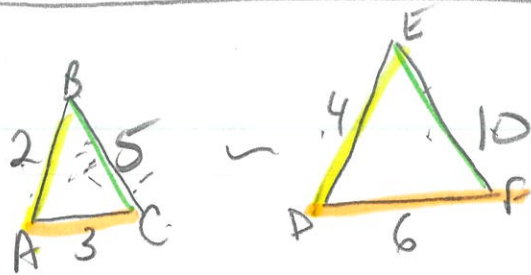
③ Triangles CDE and CFG are similar, as shown here.

Explain why the slope of \overline{CE} is the same as the slope of \overline{CG} .

\overline{CE} + \overline{CG} have the same slope b/c they are corresponding sides of similar triangle + similar triangles have same slope.



Similar Triangles



- Corresponding angles are congruent
- Corresponding sides are in proportion

$$\frac{2}{4} = \frac{1}{2} \quad \frac{3}{6} = \frac{1}{2} \quad \frac{5}{10} = \frac{1}{2}$$

★ Corresponding sides
have the same slope

ex \overline{BC} + \overline{EF} have
the same slope