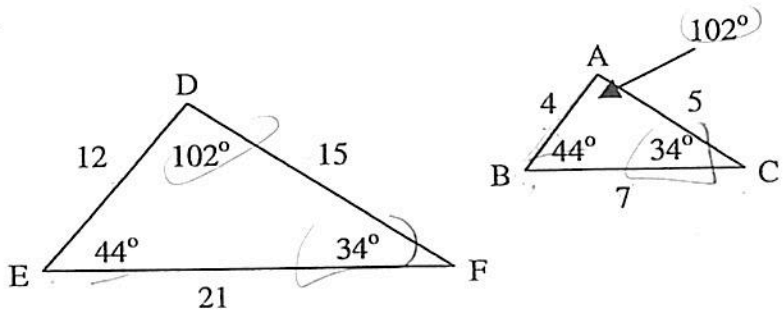


Exploring Similar Figures

*\* Homework \**

Use the triangles below to answer the following questions.

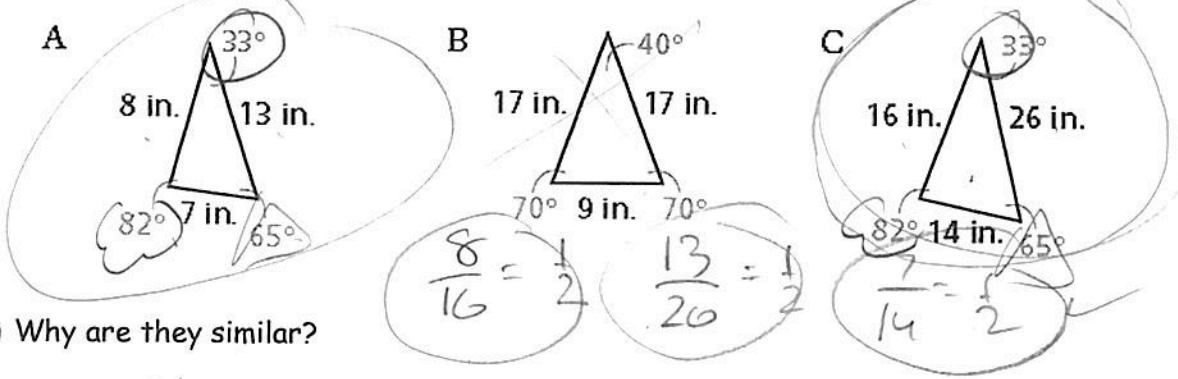


1. Which angle corresponds to  $\angle A$ ?  $\angle D$
2. Which angle corresponds to  $\angle B$ ?  $\angle E$
3. Which angle corresponds to  $\angle C$ ?  $\angle F$
4. Does each angle and its corresponding angle have the same measurement, Yes or NO? Yes
5. Which side corresponds to  $\overline{AB}$ ?  $\overline{DE}$
6. Which side corresponds to  $\overline{CB}$ ?  $\overline{FE}$
7. Which side corresponds to  $\overline{AC}$ ?  $\overline{DF}$
8. What is the ratio of side  $\overline{AB}$  length to the length of its corresponding side?  $\frac{4}{12} = \frac{1}{3}$
9. What is the ratio of side  $\overline{BC}$  length to the length of its corresponding side?  $\frac{7}{21} = \frac{1}{3}$
10. What is the ratio of side  $\overline{AC}$  length to the length of its corresponding side?  $\frac{5}{15} = \frac{1}{3}$
11. What are the ratios equal to in lowest terms?  $\frac{1}{3}$
12. Are all three ratios equal, Yes or NO? Yes
13. What is the scale factor of  $\triangle ABC$  to  $\triangle DEF$ ? 3

14. Are the triangles similar? Yes! b/c the corresponding sides are congruent + corresponding sides are in proportion.

15)

a) Which triangles are similar?

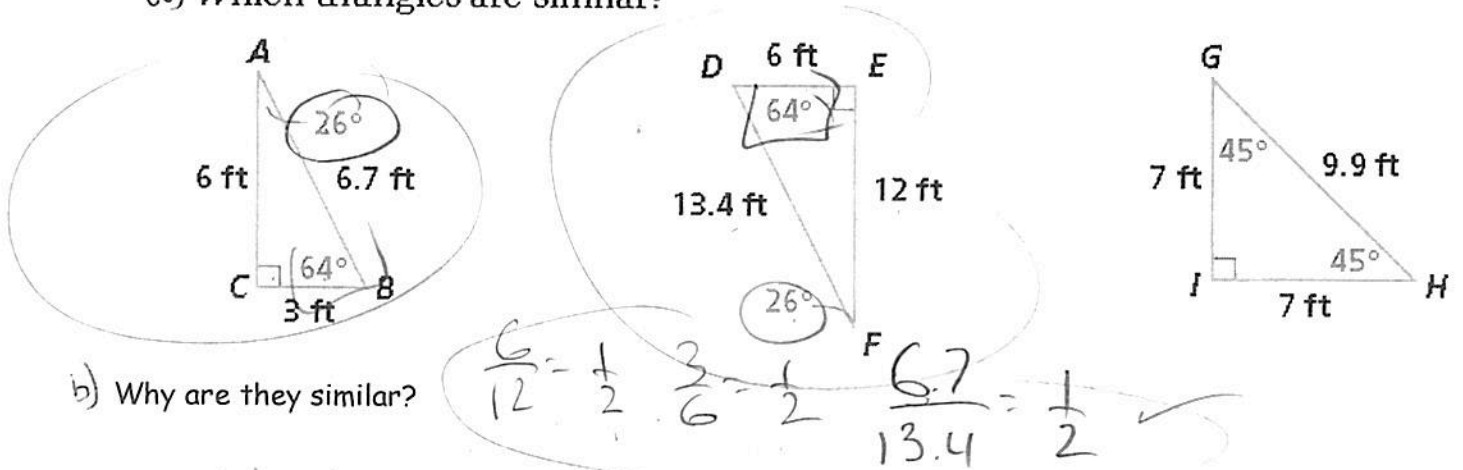


b) Why are they similar?

b/c the corresponding angles are  
 congruent + the corresponding sides  
 are in proportion.

16)

a) Which triangles are similar?



b) Why are they similar?

b/c the corresponding angles are  
 congruent + the corresponding sides  
 are in proportion.