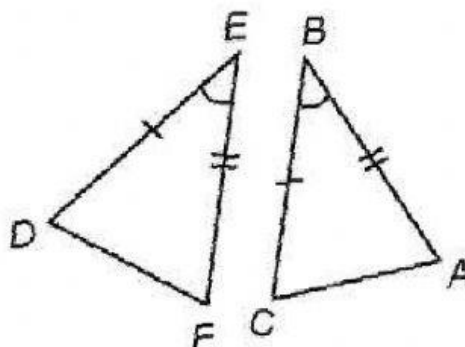


Instructions: Read the questions carefully and check the box of your answer.

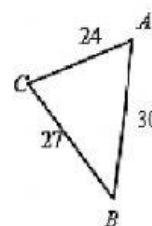
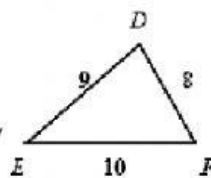
1. Are the two triangles on the right similar? And why?

- ☐ No; the sides are not congruent.
- ☐ yes; $\triangle EDF \sim \triangle BCA$ by SSS Similarity
- ☐ yes; $\triangle EDF \sim \triangle BCA$ by ASA Similarity
- ☐ yes; $\triangle EDF \sim \triangle BCA$ by SAS Similarity



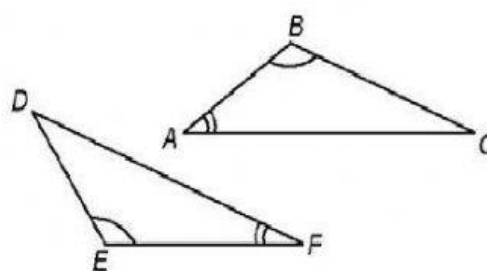
2. Are the two triangles on the right similar? And why?

- ☐ No; sides are not proportional.
- ☐ yes; $\triangle EDF \sim \triangle BAC$ by SSS Similarity
- ☐ yes; $\triangle EDF \sim \triangle BCA$ by SSS Similarity
- ☐ yes; $\triangle EDF \sim \triangle ABC$ by SSS Similarity



3. Are the two triangles on the right similar? And why?

- ☐ yes; $\triangle EDF \sim \triangle BCA$ by AA Similarity
- ☐ yes; $\triangle EDF \sim \triangle ABC$ by AA Similarity
- ☐ yes; $\triangle EDF \sim \triangle BCA$ by ASA Similarity
- ☐ No; there is not enough information to determine similarity.



4. If $\frac{a}{b} = \frac{5}{3}$, then $3a = \underline{\hspace{2cm}}$

☐ $3b$

☐ $10b$

☐ $5b$

☐ $6b$

5. *Given* : $\frac{6}{a} = \frac{18}{27}$, what is a ?

☐ 54

☐ 81

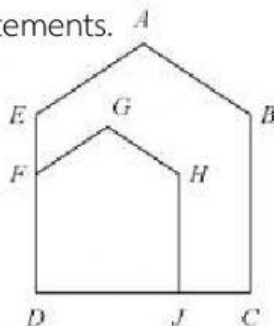
☐ 9

☐ 18

6. $ABCDE \square GHJDF$. Complete the statements.

a. $\angle H \cong \blacksquare$

b. $\frac{GH}{DJ} = \frac{AB}{\blacksquare}$



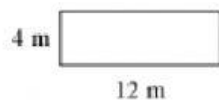
☐ $\angle B; DC$

☐ $E; AE$

☐ $E; DC$

☐ $\angle B; AE$

7. The two rectangles are similar. Which is a correct proportion for corresponding sides?



☐ $\frac{12}{8} = \frac{x}{4}$

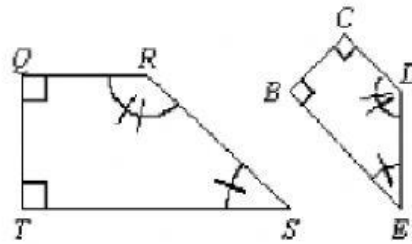
☐ $\frac{12}{4} = \frac{x}{8}$

☐ $\frac{12}{4} = \frac{x}{20}$

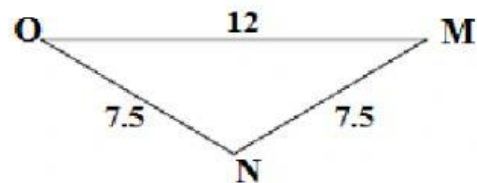
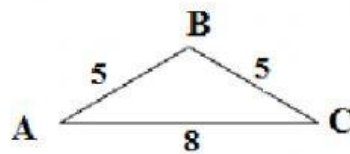
☐ $\frac{4}{12} = \frac{x}{8}$

8. Figure $TQRS \sim BCDE$. Name a pair of corresponding sides?

- ☐ $\overline{TQ}$ and $\overline{BE}$
- ☐ $\overline{TS}$ and $\overline{CD}$
- ☐ $\overline{RS}$ and $\overline{BC}$
- ☐ $\overline{QR}$ and $\overline{CD}$



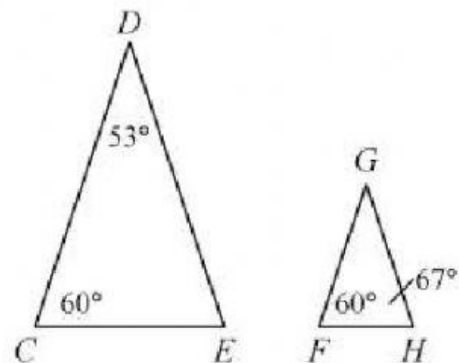
9. State if the two triangles below are similar or not.



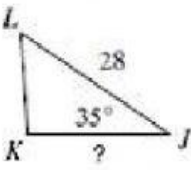
- ☐ $\triangle ABC \sim \triangle MNO$; SSS
- ☐ $\triangle ABC \sim \triangle MNO$; AA
- ☐ $\triangle ABC \sim \triangle MNO$; SAS
- ☐ The triangles are not similar.

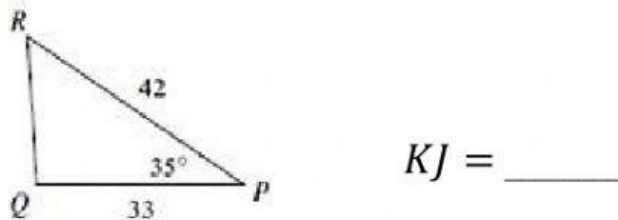
10. Write a similarity statement for the triangles.

- ☐ $\triangle CDE \sim \triangle FHG$
- ☐ $\triangle CDE \sim \triangle FGH$
- ☐ $\triangle CED \sim \triangle FGH$
- ☐ $\triangle EDC \sim \triangle FGH$

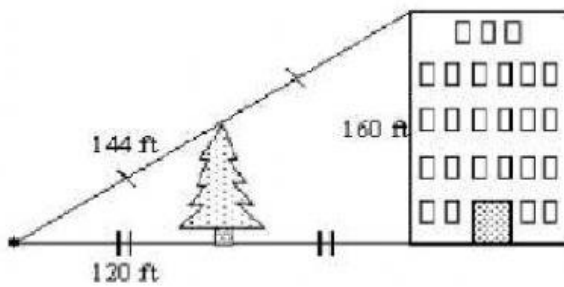


Items 11 – 15 . Show your solutions inside the box. (2 pts. each)

11.  Given the figure on the left, how long is KJ ?



12. . Use the information in the diagram to determine the height of the tree to the nearest foot.



$\therefore$ the height of the tree is _____ft.

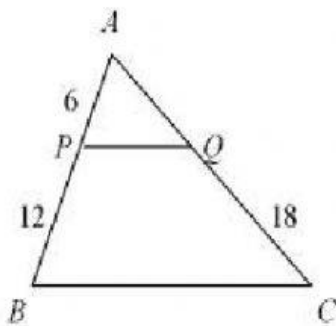
13. A building 50 ft high casts a 75-ft shadow. Sarah casts a 6-ft shadow. The triangle formed by the building and its shadow is similar to the triangle formed by Sarah and her shadow. How tall is Sarah?

$\therefore$ Sarah is _____ft tall.

14. A tree is standing next to a 40-foot high building. The tree has an 18-foot shadow, while the building has a 16-foot shadow. How tall is the tree, rounded to the nearest foot?

$\therefore$ A tree is _____ft tall.

15. Given: PQ is parallel to BC . Find the length of AQ . The diagram is not drawn to scale.



$\therefore$ AQ is _____units.

