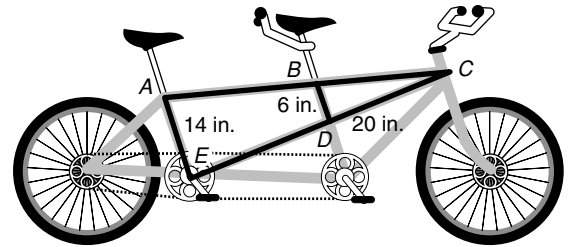


LESSON 7-3 Problem Solving
Triangle Similarity: AA, SSS, and SAS

Use the diagram for Exercises 1 and 2.

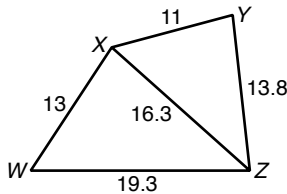
In the diagram of the tandem bike, $\overline{AE} \parallel \overline{BD}$.



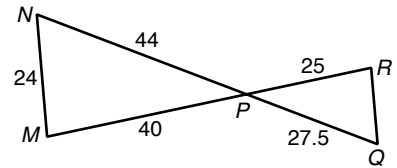
1. Explain why $\triangle CBD \sim \triangle CAE$.

2. Find CE to the nearest tenth. _____

3. Is $\triangle WXZ \sim \triangle XYZ$? Explain.

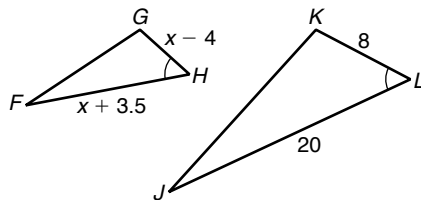


4. Find RQ . Explain how you found it.



Choose the best answer.

5. Find the value of x that makes $\triangle FGH \sim \triangle JKL$.

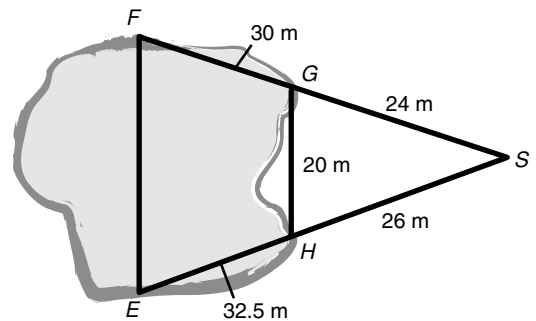


- A** 8 **C** 12
B 9 **D** 16

6. Triangle STU has vertices at $S(0, 0)$, $T(2, 6)$, and $U(8, 2)$. If $\triangle STU \sim \triangle WXY$ and the coordinates of W are $(0, 0)$, what are possible coordinates of X and Y ?

- F** $X(1, 3)$ and $Y(4, 1)$
G $X(1, 3)$ and $Y(2, 0)$
H $X(3, 1)$ and $Y(2, 4)$
J $X(0, 3)$ and $Y(4, 0)$

7. To measure the distance EF across the lake, a surveyor at S locates points $E, F, G,$ and H as shown. What is EF ?



- A** 25 m **C** 45 m
B 36 m **D** 90 m