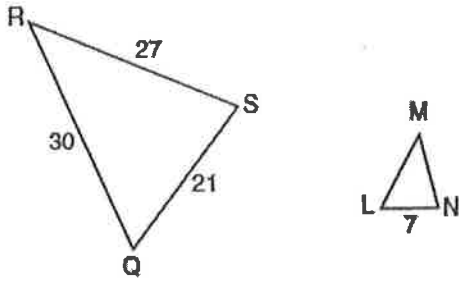


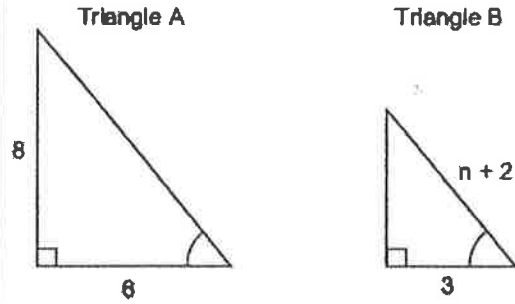
Worksheet: Similar Triangles

Show All Your Work.

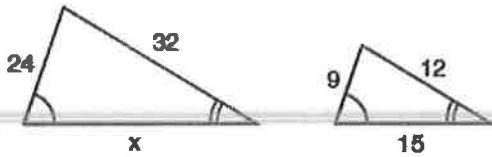
1. In the accompanying diagram, $\triangle QRS$ is similar to $\triangle LMN$, $RQ = 30$, $QS = 21$, $SR = 27$, and $LN = 7$. What is the length of \overline{ML} and \overline{MN} ?



2. In the accompanying diagram, triangle A is similar to triangle B. Find the value of n .

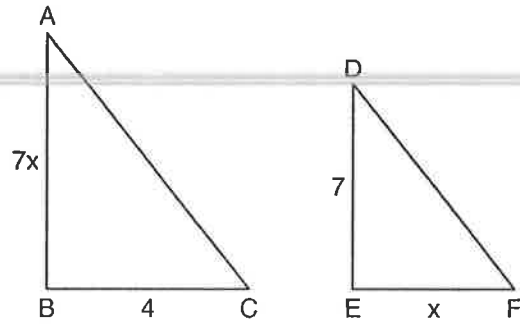


3. The accompanying diagram shows two similar triangles.



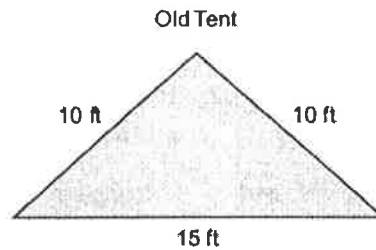
solve for x .

4. As shown in the diagram below, $\triangle ABC \sim \triangle DEF$, $AB = 7x$, $BC = 4$, $DE = 7$, and $EF = x$.



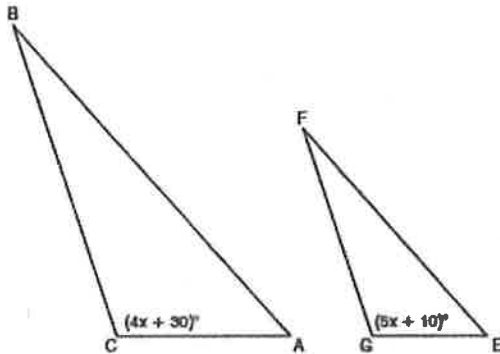
What is the length of \overline{AB} ?

5. The Rivera family bought a new tent for camping. Their old tent had equal sides of 10 feet and a floor width of 15 feet, as shown in the accompanying diagram.



If the new tent is similar in shape to the old tent and has equal sides of 16 feet, how wide is the floor of the new tent?

6. In the diagram below, $\triangle ABC \sim \triangle EFG$, $m\angle C = 4x + 30$, and $m\angle G = 5x + 10$. Determine the value of x .



Answer these questions on looseleaf. DRAW AND LABEL THE DIAGRAM EVERY TIME!

In 3–15, D is a point on \overline{AC} and E is a point on \overline{BC} of $\triangle ABC$ such that $\overline{DE} \parallel \overline{AB}$. (The figure is not drawn to scale.)

3. Prove that $\triangle ABC \sim \triangle DEC$.
4. If $CA = 8$, $AB = 10$, and $CD = 4$, find DE .
5. If $CA = 24$, $AB = 16$, and $CD = 9$, find DE .
6. If $CA = 16$, $AB = 12$, and $CD = 12$, find DE .
7. If $CE = 3$, $DE = 4$, and $CB = 9$, find AB .
8. If $CD = 8$, $DA = 2$, and $CB = 7.5$, find CE .
9. If $CD = 6$, $DA = 4$, and $DE = 9$, find AB .
10. If $CA = 35$, $DA = 10$, and $CE = 15$, find EB .

