

7-2 Similar Triangles

Figure 1

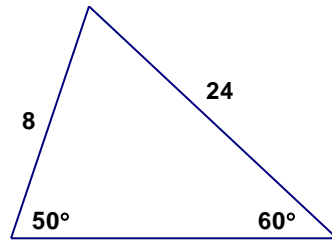
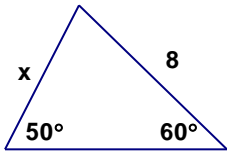


Figure 2

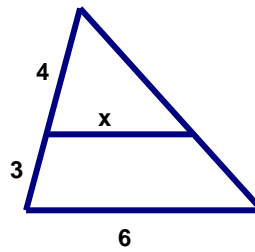


Figure 3

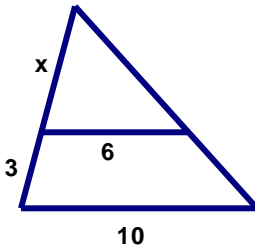


Figure 4

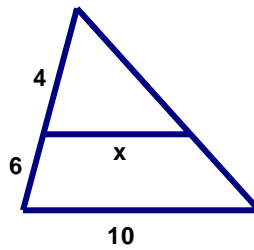
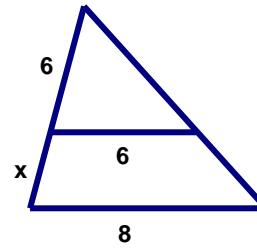


Figure 5



- _____ 1. What is the value of x in Figure 1 if the two triangles are similar?
- _____ 2. What is the value of x in figure 2 given that the horizontal lines are parallel?
- _____ 3. What is the value of x in figure 3 given that the horizontal lines are parallel?
- _____ 4. What is the value of x in figure 4 given that the horizontal lines are parallel?
- _____ 5. What is the value of x in figure 5 given that the horizontal lines are parallel?

7-3 Similar Triangles with Perimeter, Altitude, and Medians

- _____ 1. If $\triangle ABC \sim \triangle XYZ$, $AB = 6$, $BC = 10$, $AC = 14$, and $XY = 9$. What is the perimeter of $\triangle XYZ$?
- _____ 2. If $\triangle ABC \sim \triangle XYZ$, $AB = 3$, $BC = 6$, $AC = 9$, and $XY = 8$. What is the perimeter of $\triangle XYZ$?
- _____ 3. $\triangle ABC \sim \triangle XYZ$ with \overline{AD} being the altitude of $\triangle ABC$ and \overline{XN} being the altitude of $\triangle XYZ$. If $AB = 8$, $AD = 10$, $BC = 12$, and $YZ = 12$, what is XN ?
- _____ 4. $\triangle ABC \sim \triangle DEF$. \overline{BG} is a median of $\triangle ABC$, and \overline{EH} is a median of $\triangle DEF$. If $BC = 30$, $BG = 10$, and $EF = 15$, what is EH ?
- _____ 5. $\triangle STR \sim \triangle XYZ$. If the perimeter of $\triangle STR$ is 38 with $XY = 6$ and $ST = 12$, what is the perimeter of $\triangle XYZ$?