

Geometry Chapter 8 Practice

• Study your QUIZ!!
 • Also study RADICAL REVIEW!!

___ 1. A hockey player made 9 goals in 12 games. What is the ratio of goals to games?

___ 2. There are 84 boys in a freshman class of 146 students.

What is the ratio of boys to girls?

A. 42:73

B. 31:42

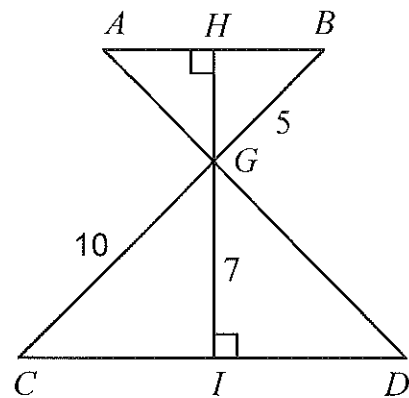
C. 42:31

D. 73:42

___ 3. Given: $\triangle ABG \sim \triangle DCG$

GH is an altitude of $\triangle ABG$ and GI is an altitude of $\triangle CDG$

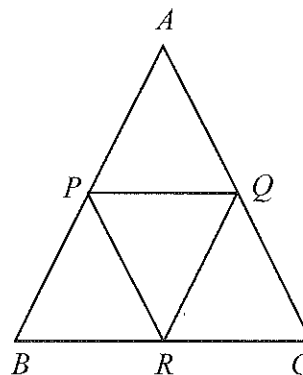
Find the measure of GH



___ 4. Given: $\triangle ABC \sim \triangle PQR$

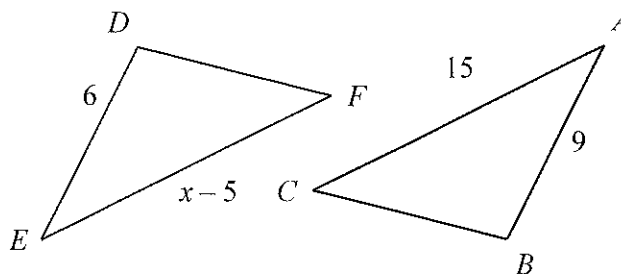
Perimeter of $\triangle PQR = 36$, $AC = 12$, $PR = 6$

Find the perimeter of $\triangle ABC$

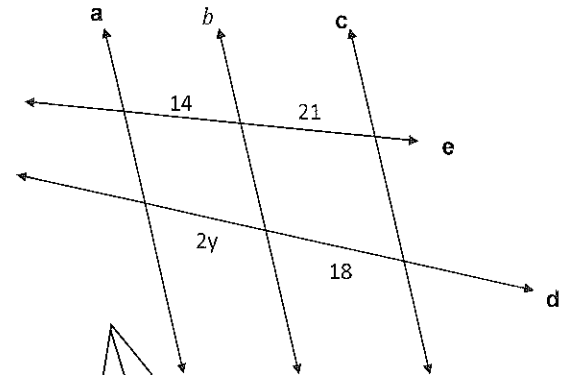


___ 5. Identify the similar triangles and find x .

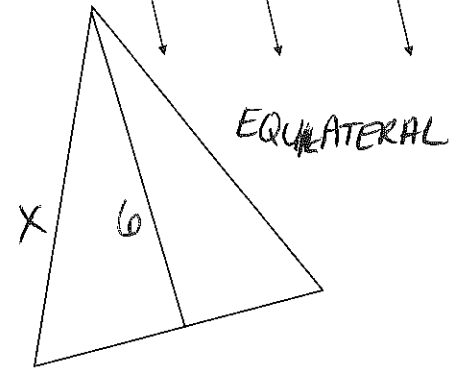
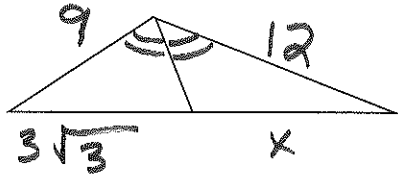
Given: $\angle C \cong \angle F$ and $\angle E \cong \angle A$.



6. Find the value of y if lines a and c are parallel to line b .



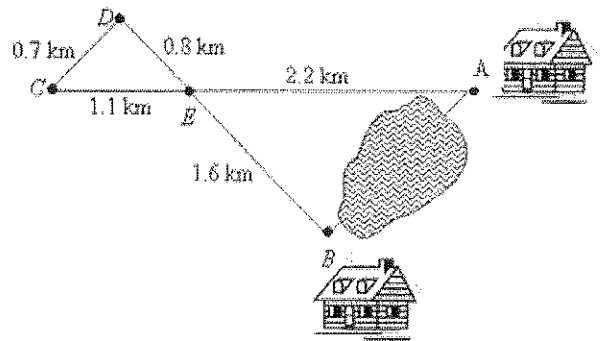
7. Find x in each of the following.



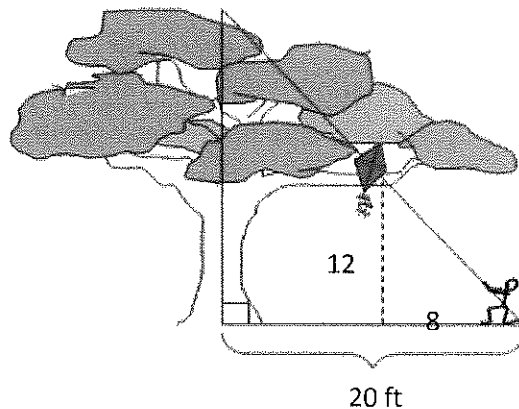
8. Two cabins are located at points A and B on either side of a lake.

$$\overline{AB} \parallel \overline{CD}$$

Find the distance between the cabins.

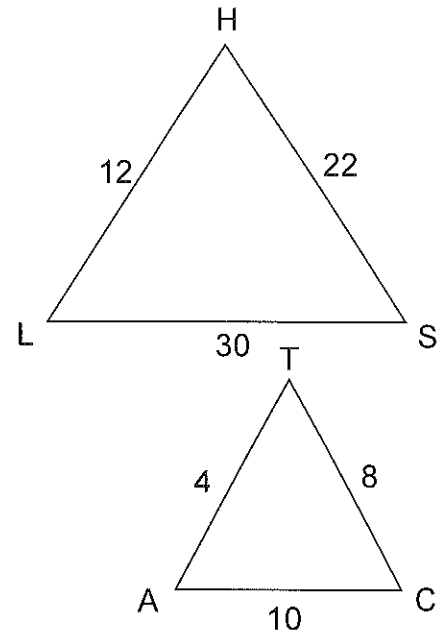


9. Stan is standing 20 feet from a tree trying to pull his kite down from where it is stuck in a branch 12 feet above the ground.

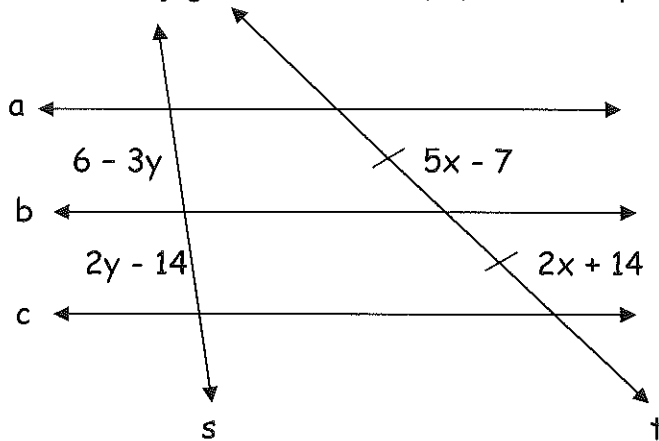


What is the overall height of the tree?

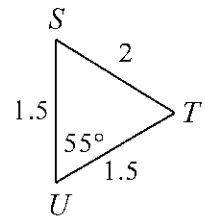
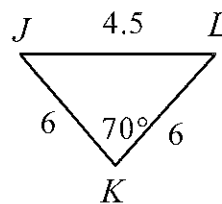
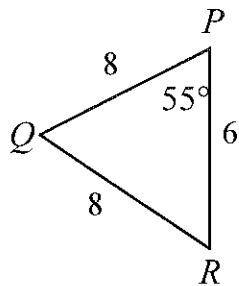
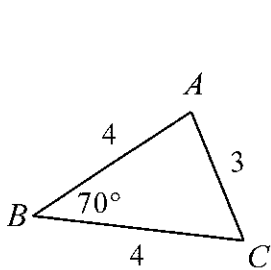
10. Determine whether the pair of triangles are similar.
 Show ALL of your work.
 If the triangles are similar, state the similarity rule(s) that apply.



11. Find x and y given that lines a , b , and c are parallel



12. Determine which of the triangles are similar.
 Justify your answer by showing ALL your work.
 Write the similarity statements that apply.



13 Complete the following proportions.

$$\frac{BC}{DE} = \frac{AB}{BD}$$

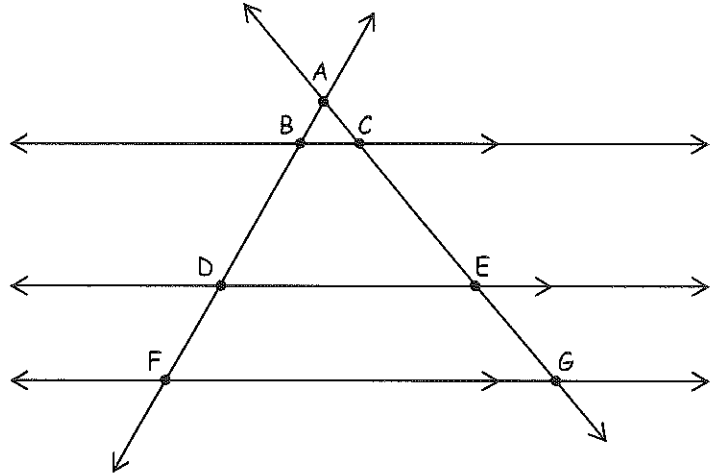
$$\frac{BD}{BF} = \frac{CG}{AG}$$

$$\frac{AE}{CE} = \frac{BD}{AD}$$

$$\frac{AG}{FG} = \frac{FD}{AD}$$

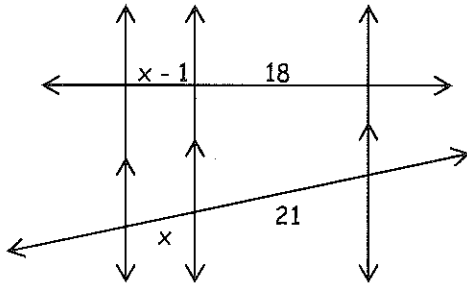
$$\frac{GA}{DA} = \frac{FA}{EA}$$

$$\frac{AD}{AE} = \frac{AG}{AE}$$

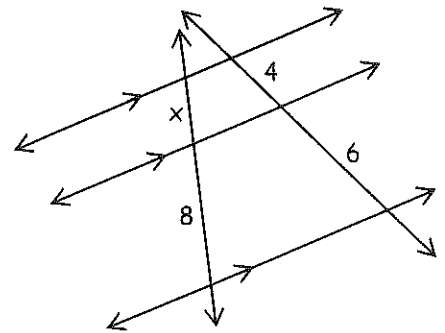


For #14, find the values of the missing variables

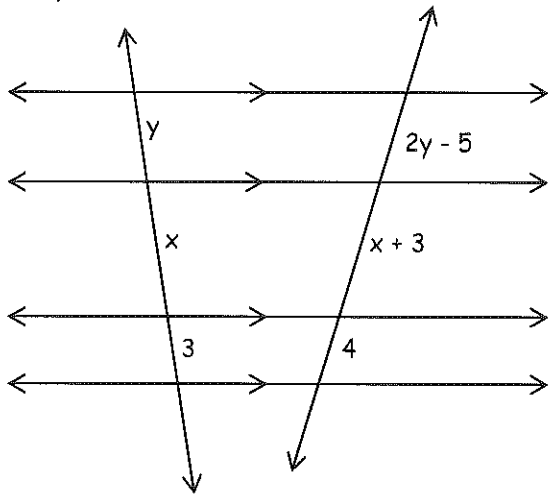
14. $x =$ _____



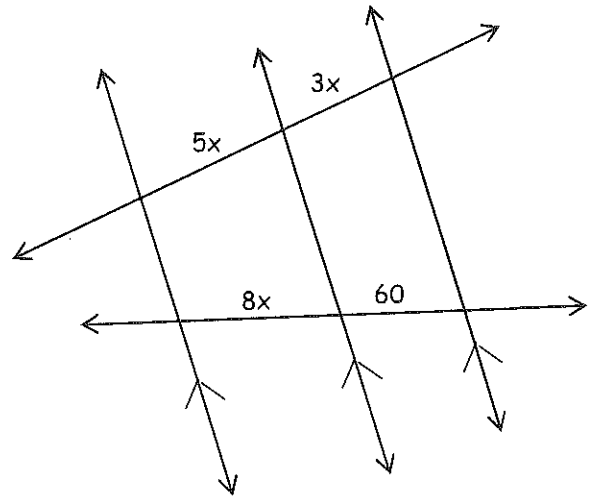
15. $x =$ _____



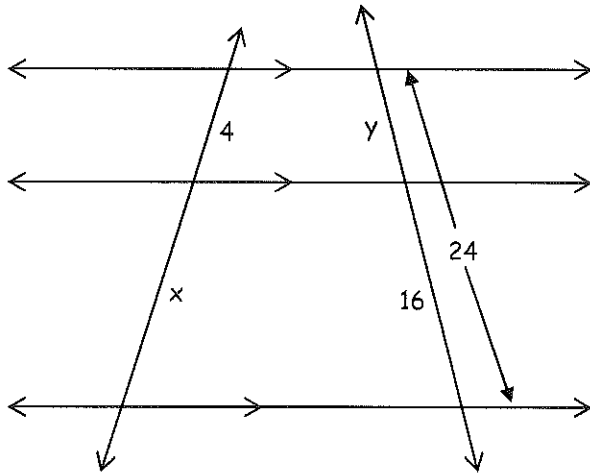
16. $x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$



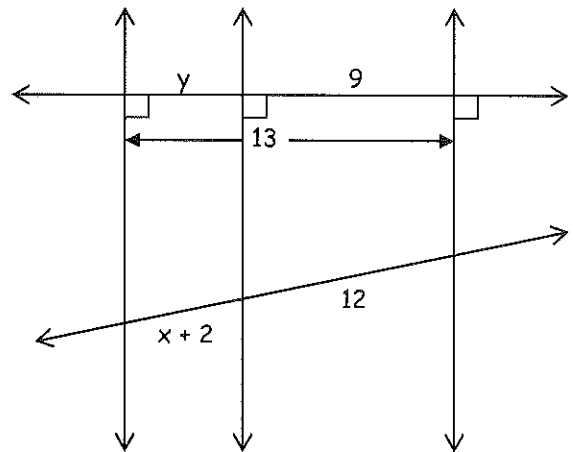
18. $x = \underline{\hspace{2cm}}$



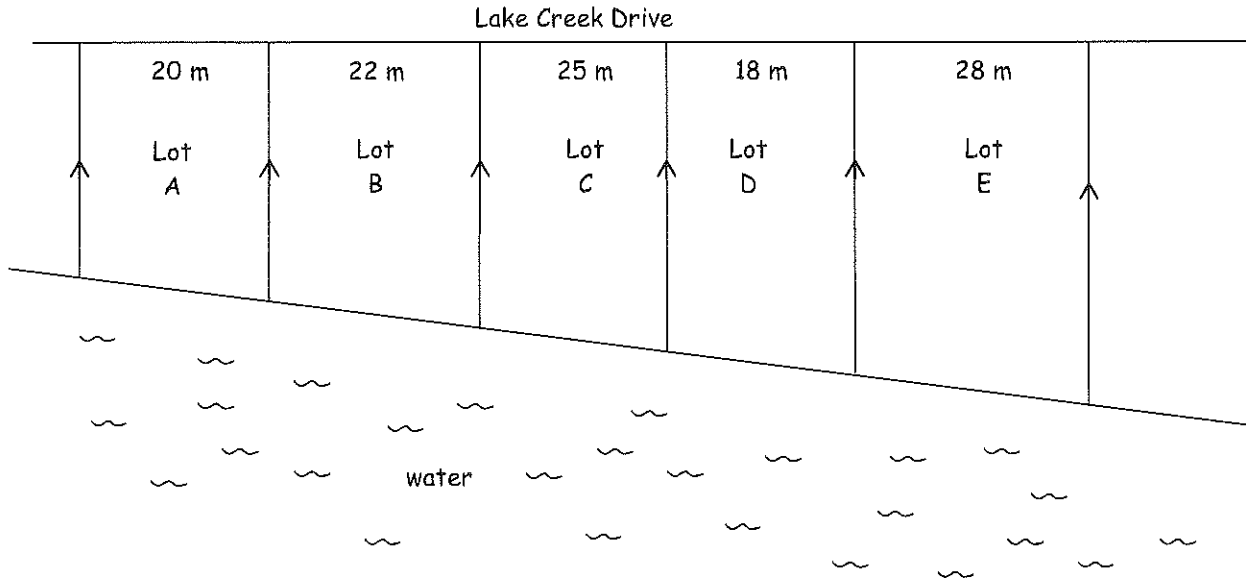
19. $x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$



19. $x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$



20. In Lake Creek, the lots on which houses are to be built are laid out as shown. What is the lake frontage for each of the five lots if the total frontage is 135.6 meters? Show all work.



Lot A = _____

Lot B = _____

Lot C = _____

Lot D = _____

Lot E = _____

21. A park ranger needs to find the location from a helicopter of an injured bear. He knows some of the trail distances, but needs to know the horizontal distance from the peak of the mountain. Find that distance. Show all work.

