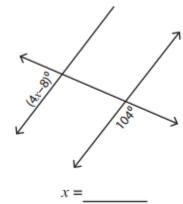
## Chapter 3 Study Guide

## Section 3-1

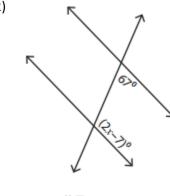
## Angle relationships

Name the angle relationship and solve for  $\boldsymbol{x}$ .

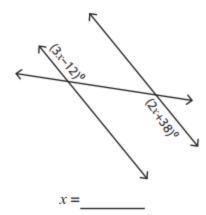
1)



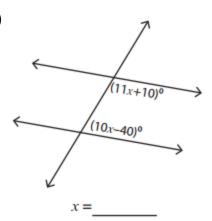
2)



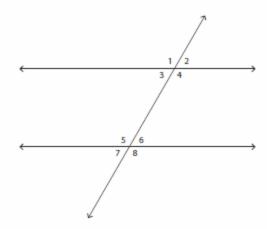
3)



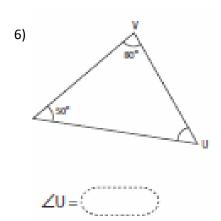
4)



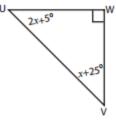
Write the angle relationship for each pair of angles.



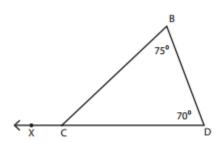
- 1) ∠1 and ∠8 are \_\_\_\_\_
- ∠4 and ∠6 are
- ∠3 and ∠5 are
- 4) ∠2 and ∠7 are \_\_\_\_\_
- 5) ∠3 and ∠6 are \_\_\_\_\_
- 6) ∠1 and ∠7 are
- 7) ∠4 and ∠5 are
- 8) ∠2 and ∠8 are



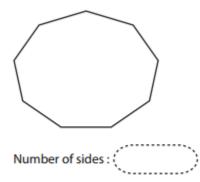
7) Find the value of x and then the measure of each angle.



8) Find the exterior angle.

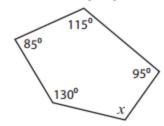


9)



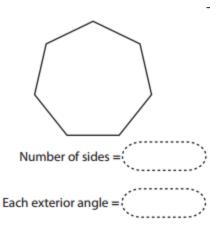
Sum of the interior angles:

10) Find the missing angle x

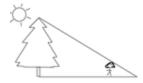


Sum of the interior angles =  $(x = x)^{-1}$ 

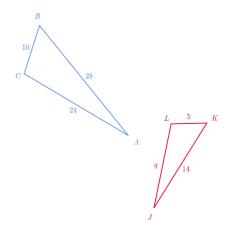
11)



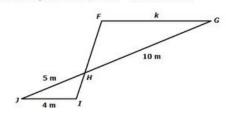
Tonya is 1.3 meters tall. She stands 7 meters in front of a tree and casts a shadow 1.8 meters long. How tall is the tree?



13) Find the missing side of the similar triangles.



14) In the diagram below,  $\triangle JIH \sim \triangle GFH$ . Find k.



Write your answer as a whole number or a decimal. Do not round.

k = metres

15) Write in slope intercept form and identify the slope and y-intercept.

$$3x - 8y = 12$$