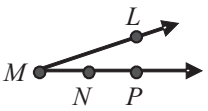
NAME_____ DATE_____

Module Test A — Module 8

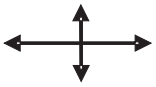
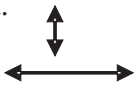
Circle the correct answer for each problem.

1. Which is NOT a correct way to name the angle shown?



a. $\angle NML$ b. $\angle LNP$ c. $\angle M$ d. $\angle LMP$

2. Which diagram shows parallel lines?

a.  b.  c.  d. 

3. $\angle A$ and $\angle B$ are complementary and $m\angle B = 47°$. What is $m\angle A$?

a. 43° b. 47° c. 90° d. 133°

4. $\angle G$ and $\angle H$ are vertical angles and $m\angle G = 80°$. What is $m\angle H$?

a. 10° b. 80° c. 100° d. 180°

5. Which can be the angle measures of an obtuse triangle?

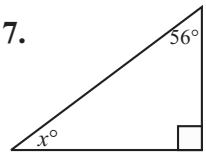
a. 50°, 60° and 70° b. 20°, 70° and 90° c. 30°, 30° and 120° d. 10°, 95° and 95°

6. Which can be the side lengths of an equilateral triangle?

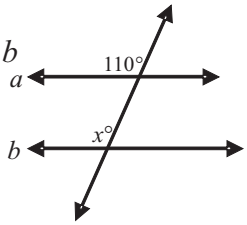
a. 2 m, 4 m, 5 m b. 3 m, 3 m, 4 m c. 4 m, 8 m, 8 m d. 4 m, 4 m, 4 m

Find the value of *x*.

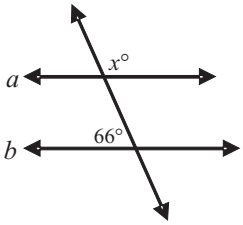
7.



8. $a \parallel b$

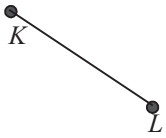


9. $a \parallel b$



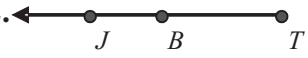
Write all the ways to name the figure using symbols.

10.

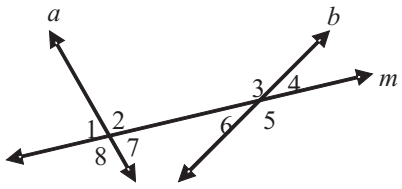


11.

12.



Line *m* is a transversal intersecting lines *a* and *b*. Describe each pair of angles as vertical, corresponding, alternate interior, alternate exterior, or none of the these.



13. ∠2 and ∠6

14. ∠8 and ∠3

15. ∠7 and ∠5

16. ∠4 and ∠8

17. ∠1 and ∠7

18. ∠1 and ∠3

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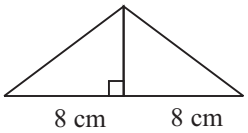
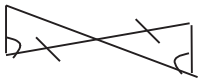
Determine whether the triangles are congruent. If so, write *SSS Congruence*, *SAS Congruence*, or *ASA Congruence*.

19.

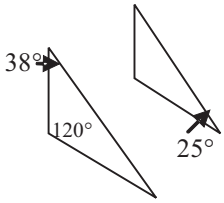


20.

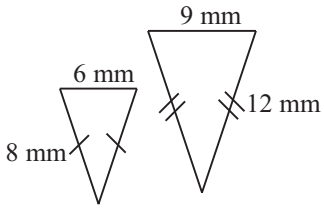


Determine whether the triangles are similar. If so, write *AA Similarity* or *SSS Similarity*.

21.



22.



23. $\triangle HAT \cong \triangle MOP$

a. Which segment must be congruent to $\overline{OP}$?

b. Which angle must be congruent to $\angle H$?

24. From his backdoor, Freddie walked 20 feet due south and then 34 feet due west. Tell how to find Freddie's direct distance to his backdoor. Find the distance to the nearest tenth of a foot.

25. Write a similarity statement for the similar triangles in the figure. Explain why the triangles are similar. Then, show how to find x, the height of the tree.