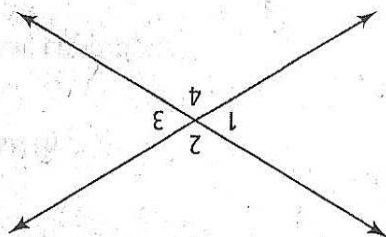


Short Response

7. Why is the following statement not a good definition?
 A linear pair is two angles whose measures sum to 180.

Use the diagram below for Exercises 8 and 9.



8. What reason justifies the following statement?
 Angle 1 is congruent to angle 3.

9. What reason justifies the following statement?
 Angle 1 is supplementary to angle 2.

10. What is the area of a circle with a diameter of 44 m? Leave your answer in terms of π .

11. What is the length of a segment with endpoints at $(-3, 5)$ and $(4, 5)$?

12. What is the other endpoint of a segment with an endpoint at $(4, 4)$ and a midpoint at $(-2, -1)$?

Extended Response

13. Write a true conditional. Then write the inverse, converse, and contrapositive for the conditional. Determine whether each statement is true. Provide a counterexample for statements that are not true.