

Define the following terms in words and draw an example.

1. Parallel lines
2. Transversal
3. Perpendicular lines
4. Complementary angles
5. Supplementary angles

Use the diagram below to name the type of angles, then solve.

6. If $m\angle 2 = 113^\circ$, what is $m\angle 6$?
Type:

7. If $m\angle 4 = 100^\circ$, what is $m\angle 6$?
Type:

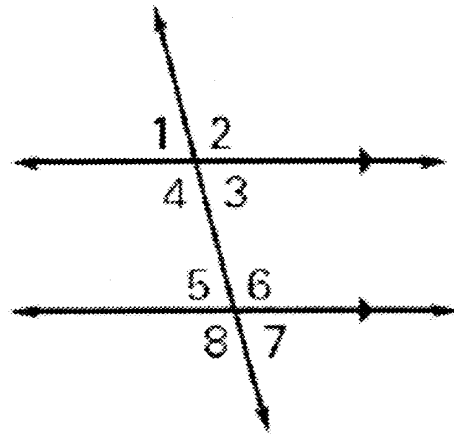
8. If $m\angle 1 = 84^\circ$, what is $m\angle 3$?
Type:

9. If $m\angle 7 = 75^\circ$, what is $m\angle 1$?
Type:

10. If $m\angle 3 = 81^\circ$, what is $m\angle 4$?
Type:

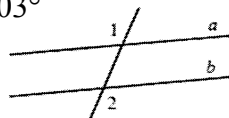
11. If $m\angle 6 = 111^\circ$, what is $m\angle 3$?
Type:

12. If $m\angle 2 = 112^\circ$, what is $m\angle 5$?
Type:

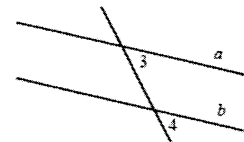


Beginning Proofs. Explain your reasoning!

13. Given: $a \parallel b$; $m\angle 1 = 103^\circ$
Find: $m\angle 2$

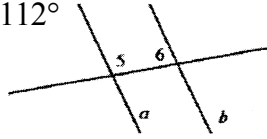


14. Given: $a \parallel b$; $m\angle 3 = 64^\circ$
Find: $m\angle 4$



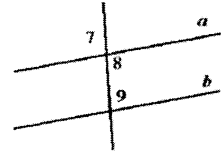
15. Given: $a \parallel b$; $m\angle 5 = 112^\circ$

Find: $m\angle 6$



16. Given: $a \parallel b$; $m\angle 7 = 93^\circ$

Find: $m\angle 9$



State whether you agree or disagree with the statement. Explain your reasoning.

17. Zero is an even number.

18. Two circles can be parallel.