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3. m and n

4. t

5. 8

6. $\angle 5, \angle 7, \angle 1$, and $\angle 3$ are congruent.
$\angle 8, \angle 6, \angle 4$, and $\angle 2$ are congruent.

7. $\angle 1 = 107°, \angle 2 = 73°$

8. $\angle 3 = 95°, \angle 4 = 85°$

9. $\angle 5 = 49°, \angle 6 = 131°$

10. The two lines are not parallel, so $\angle 5 \neq \angle 6$.

15. $\angle 6 = 61°$; $\angle 6$ and the given angle are vertical angles.
$\angle 5 = 119°$ and $\angle 7 = 119°$;
$\angle 5$ and $\angle 7$ are supplementary to the given angle.
$\angle 1 = 61°$; $\angle 1$ and the given angle are corresponding angles.
$\angle 3 = 61°$; $\angle 1$ and $\angle 3$ are vertical angles.
$\angle 2 = 119°$ and $\angle 4 = 119°$;
$\angle 2$ and $\angle 4$ are supplementary to $\angle 1$.

16. $\angle 2 = 99°$; $\angle 2$ and the given angle are vertical angles.
$\angle 1 = 81°$ and $\angle 3 = 81°$; $\angle 1$ and $\angle 3$ are supplementary to the given angle.
$\angle 4 = 99°$; $\angle 2$ and $\angle 4$ are alternate interior angles.
$\angle 5 = 81°$ and $\angle 7 = 81°$; $\angle 5$ and $\angle 7$ are supplementary to $\angle 4$.
$\angle 6 = 99°$; $\angle 6$ and the given angle are alternate exterior angles.

17. $\angle 2 = 90°$; $\angle 2$ and the given angle are vertical angles.
$\angle 1 = 90°$ and $\angle 3 = 90°$; $\angle 1$ and $\angle 3$ are supplementary to the given angle.
$\angle 4 = 90°$; $\angle 4$ and the given angle are corresponding angles.
$\angle 6 = 90°$; $\angle 4$ and $\angle 6$ are vertical angles.
$\angle 5 = 90°$ and $\angle 7 = 90°$; $\angle 5$ and $\angle 7$ are supplementary to $\angle 4$.

18. 56°; *Sample answer:* $\angle 1$ and $\angle 8$ are corresponding angles and $\angle 8$ and $\angle 4$ are supplementary.

19. 132°; *Sample answer:* $\angle 2$ and $\angle 4$ are alternate interior angles and $\angle 4$ and $\angle 3$ are supplementary.

20. 55°; *Sample answer:* $\angle 4$ and $\angle 2$ are alternate interior angles.

21. 120°; *Sample answer:* $\angle 6$ and $\angle 8$ are alternate exterior angles.

22. 129.5°; *Sample answer:* $\angle 7$ and $\angle 5$ are alternate exterior angles and $\angle 5$ and $\angle 6$ are supplementary.

23. 61.3°; *Sample answer:* $\angle 3$ and $\angle 1$ are alternate interior angles and $\angle 1$ and $\angle 2$ are supplementary.

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