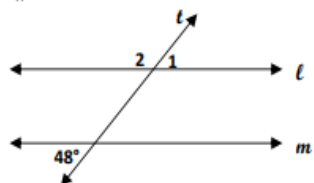
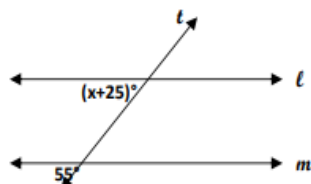


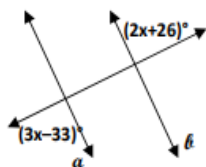
1. $l \parallel m$. Find $m\angle 1$ and $m\angle 2$



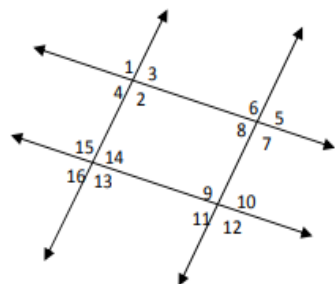
3. $l \parallel m$. Find x .



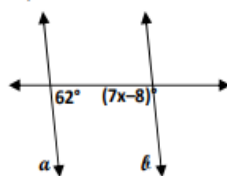
5. $a \parallel b$. Find x .



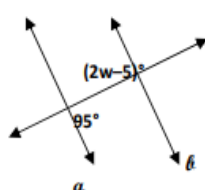
7. If $m\angle 2 = 23^\circ$, find $m\angle 12$.



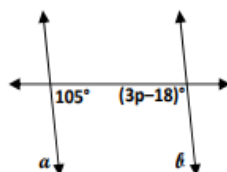
2. $a \parallel b$. Find y



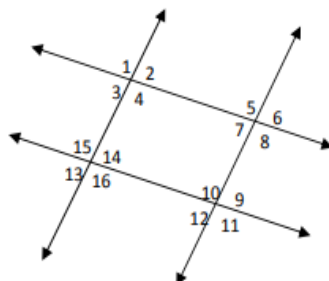
4. $a \parallel b$. Find w .



6. $a \parallel b$. Find p .

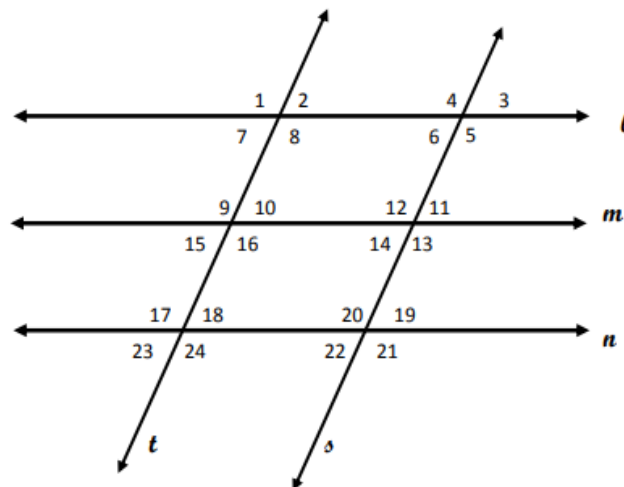


8. If $m\angle 1 = 122^\circ$, find $m\angle 10$.



9. Given $l \parallel m \parallel n$ and $s \parallel t$, and $m\angle 1 = 71^\circ$, find:

$$\begin{aligned} m\angle 2 &= ______ & m\angle 3 &= ______ & m\angle 4 &= ______ \\ m\angle 5 &= ______ & m\angle 6 &= ______ & m\angle 7 &= ______ \\ m\angle 8 &= ______ & m\angle 9 &= ______ & m\angle 10 &= ______ \\ m\angle 11 &= ______ & m\angle 12 &= ______ & m\angle 13 &= ______ \\ m\angle 14 &= ______ & m\angle 15 &= ______ & m\angle 16 &= ______ \\ m\angle 17 &= ______ & m\angle 18 &= ______ & m\angle 19 &= ______ \\ m\angle 20 &= ______ & m\angle 21 &= ______ & m\angle 22 &= ______ \\ m\angle 23 &= ______ & m\angle 24 &= ______ \end{aligned}$$



Please fill the blank in with always, sometimes, or never.

10. Vertical angles are _____ congruent.

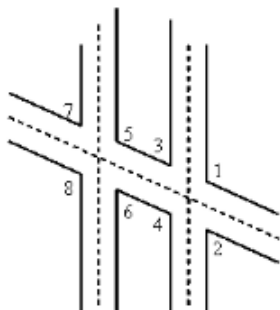
11. Corresponding angles are _____ congruent.

Indicate if the following pairs of lines are coinciding, parallel, perpendicular, or neither.

12. $x - 5y = 0$ $y + 1 = \frac{1}{5}(x + 5)$

13. $y - 7x = 6$ $y + 7x = 8$

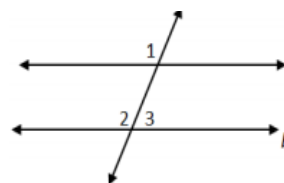
14. $6x - 4y = 24$ $3y + 2x = 12$



Fill in the blanks.

Given: $a \parallel b$

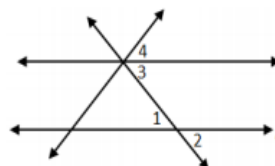
Prove: $m\angle 1 + m\angle 3 = 180^\circ$



Statement	Reason
1. $a \parallel b$	1. Given
2. $\angle 1 \cong \angle 2$	2. _____
3. $m\angle 1 = m\angle 2$	3. _____
4. _____	4. Definition of a linear pair
5. _____	5. If two angles form a linear pair, their angle measures sum to 180° .
6. $m\angle 1 + m\angle 3 = 180^\circ$	6. _____

Given: $\angle 4 \cong \angle 3$; $c \parallel d$

Prove: $\angle 4 \cong \angle 2$



Statement	Reason
1. $\angle 4 \cong \angle 3$; $c \parallel d$	1. Given
2. $\angle 3 \cong \angle 1$	2. _____
3. _____	3. Transitive Property of Congruence
4. _____	4. _____
5. $\angle 4 \cong \angle 2$	5. _____

- a. If $m\angle 6 = 72^\circ$, what is the sum of $m\angle 7$ and $m\angle 3$? Explain how you found your answer using angle relationships or theorems/postulates.
- b. Which of the five angle relationships formed from parallel lines and transversals describes the relationship between $\angle 1$ and $\angle 8$?

