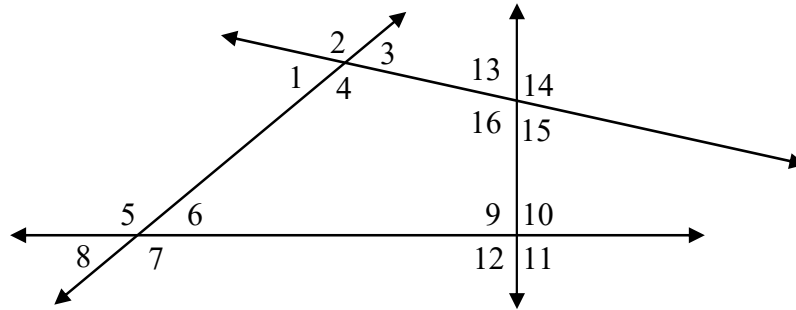


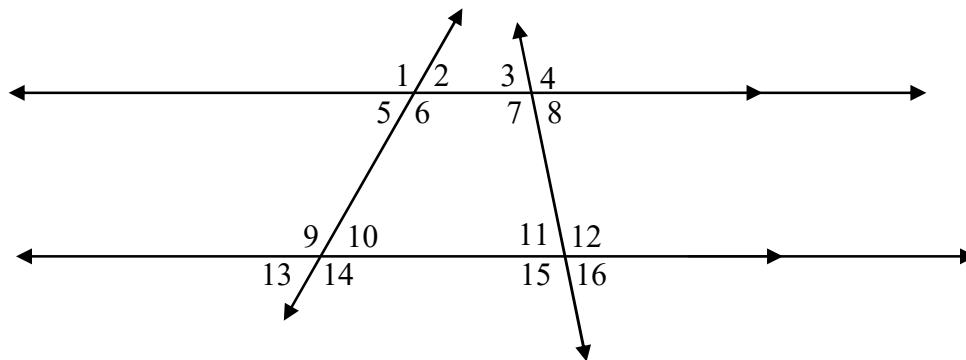
Parallel Lines and Transversals



Refer to the above figure and identify the special angle pair name.

- 1) $\angle 3$ and $\angle 13$ _____ 2) $\angle 8$ and $\angle 10$ _____
- 3) $\angle 11$ and $\angle 15$ _____ 4) $\angle 8$ and $\angle 6$ _____
- 5) $\angle 1$ and $\angle 6$ _____ 6) $\angle 6$ and $\angle 10$ _____
- 7) $\angle 14$ and $\angle 15$ _____ 8) $\angle 2$ and $\angle 9$ _____

Let $m\angle 1 = 115^\circ$ and $m\angle 12 = 110^\circ$. Find the missing angles.

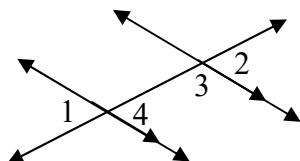


9. $m\angle 9 =$ _____ 10. $m\angle 4 =$ _____ 11. $m\angle 10 =$ _____ 12. $m\angle 11 =$ _____
13. $m\angle 8 =$ _____ 14. $m\angle 5 =$ _____ 15. $m\angle 3 =$ _____ 16. $m\angle 14 =$ _____

Refer to the above figure and identify the special angle pair name.

- 17) $\angle 7$ and $\angle 2$ _____ 18) $\angle 6$ and $\angle 14$ _____
- 19) $\angle 13$ and $\angle 12$ _____ 20) $\angle 7$ and $\angle 11$ _____
- 21) $\angle 4$ and $\angle 8$ _____ 22) $\angle 13$ and $\angle 16$ _____

For problems 23-24, use the figure below to identify the angle relationship. Then, find the missing information.



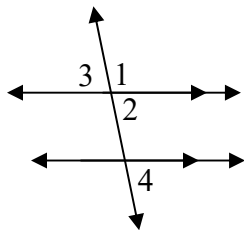
23) Angle relationship _____
 $m\angle 1 = 3x - 17^\circ$
 $m\angle 2 = x + 1^\circ$

24) Angle relationship _____
 $m\angle 3 = 20k + 11^\circ$
 $m\angle 4 = 8k + 1^\circ$

$x = \underline{\hspace{1cm}}$ $m\angle 1 = \underline{\hspace{1cm}}$ $m\angle 2 = \underline{\hspace{1cm}}$

$k = \underline{\hspace{1cm}}$ $m\angle 3 = \underline{\hspace{1cm}}$ $m\angle 4 = \underline{\hspace{1cm}}$

For problems 25-26, use the figure below to identify the angle relationship. Then, find the missing information.



25) Angle relationship _____
 $m\angle 1 = 95^\circ + 7h$
 $m\angle 2 = 55^\circ - h$

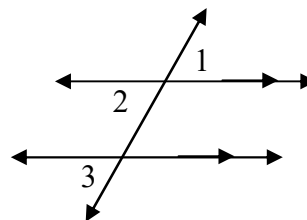
26) Angle relationship _____
 $m\angle 3 = 5k + 12^\circ$
 $m\angle 4 = 7k - 16^\circ$

$h = \underline{\hspace{1cm}}$ $m\angle 1 = \underline{\hspace{1cm}}$ $m\angle 2 = \underline{\hspace{1cm}}$

$k = \underline{\hspace{1cm}}$ $m\angle 3 = \underline{\hspace{1cm}}$ $m\angle 4 = \underline{\hspace{1cm}}$

Use the figure below to identify the angle relationship. Then, find the missing information.

27) Angle relationship _____
 $m\angle 1 = 7y + 16$
 $m\angle 2 = 2x$
 $m\angle 3 = 4x - 30$



$x = \underline{\hspace{1cm}}$ $y = \underline{\hspace{1cm}}$ $m\angle 1 = \underline{\hspace{1cm}}$ $m\angle 2 = \underline{\hspace{1cm}}$ $m\angle 3 = \underline{\hspace{1cm}}$