Name:

BECA / Dr. Huson / Geometry 03 Parallels and transversals

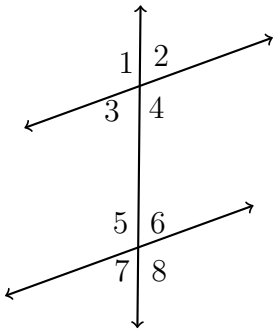
3.5 Transversals and angles review

1. Do Now: Given two parallel lines and a transversal, as shown, with $m\angle 8 = 123°$.

   (a) What angle is corresponding to $\angle 8$?

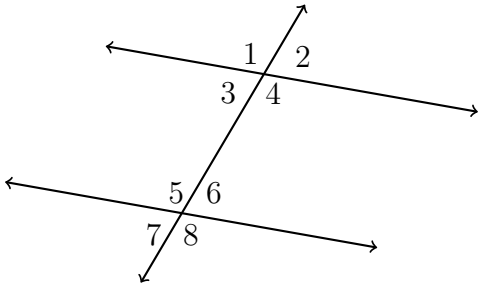
   (b) What angle is alternate exterior to $\angle 8$?

   (c) Find $m\angle 2$



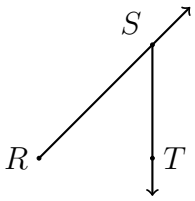
2. Find $m\angle 1$ given two parallel lines and a transversal, with

   $m\angle 2 = \frac{2}{7}(2x + 58)$ $\quad$ $m\angle 7 = \frac{1}{7}(5x + 5)$

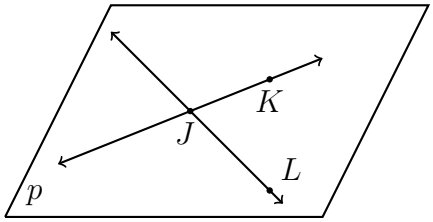


3. Points that are all located on the same plane are _____.

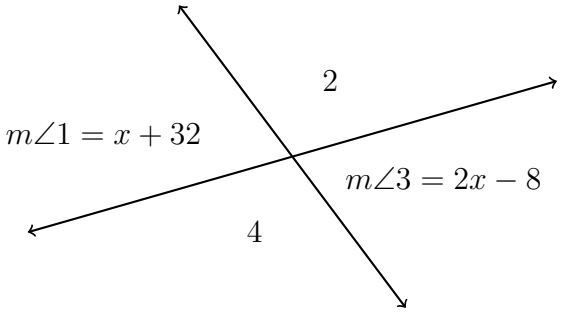
4. Write down the name of two line segments shown in the diagram below using proper geometric notation.



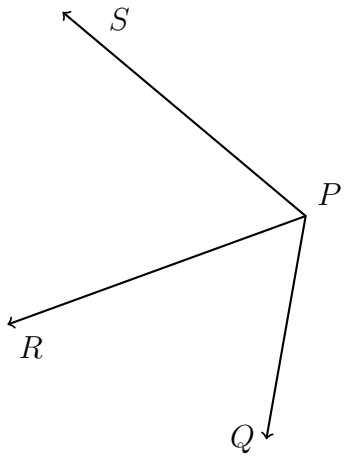
5. Identify two lines in the given plane.



6. As shown below, two lines intersect making four angles: $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$. Given that $m\angle 1 = x + 32$ and $m\angle 3 = 2x - 8$, find $m\angle 1$.



7. An angle bisector is shown below, with $\overrightarrow{PR}$ bisecting $\angle QPS$. Given $m\angle QPR = 6x - 12$ and $m\angle QPS = 10x + 4$, find $m\angle QPS$.



8. Spicy: Practice these techniques for quadratics (x^2)

   (a) Expand $(x + 4)(x + 3)$

   (b) Convert to *standard form* (equal to zero): $x^2 + 4 = 4x$

   (c) Factor, $x^2 + 9x + 8 = 0$