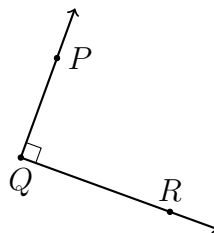
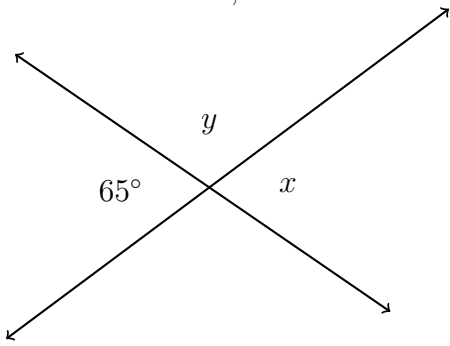


3.8 Review of angle addition; “Do NOT Solve”

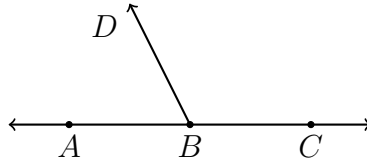


1. Write down an equation stating the value of the given angle.

2. As shown below, two lines intersect making four angles. Write two equations, one for x and one for y .

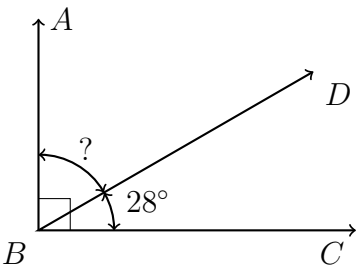


3. Write down an equation expressing the sum of the degree measures of this linear pair, $\angle ABD$ and $\angle CBD$.



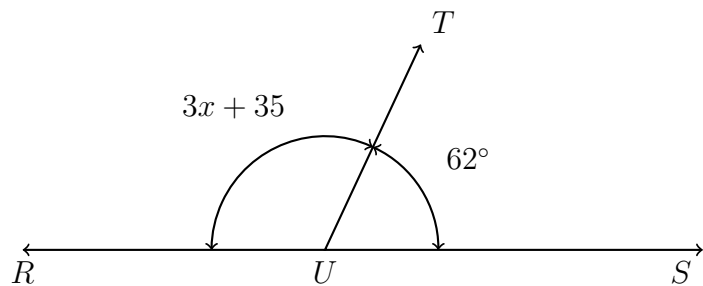
4. Apply the Angle Addition postulate. Given $m\angle CBD = 28^\circ$, $m\angle ABC = 90^\circ$.

Write an equation to represent the situation
(do not solve)



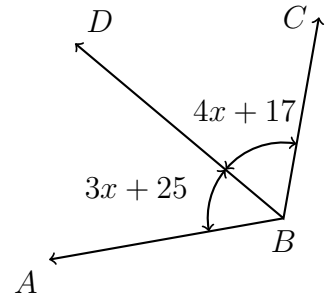
5. A linear pair is formed by two angles, $m\angle RUT = 3x + 35$ and $m\angle SUT = 62^\circ$.

Write an equation. *Do not* solve for x .



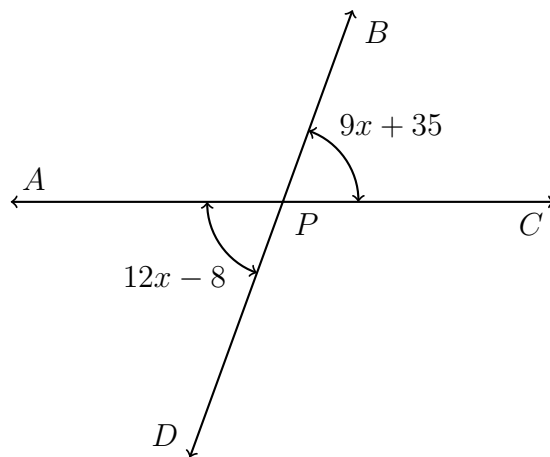
6. Given $m\angle ABD = 3x + 25$, $m\angle DBC = 4x + 17$, and $m\angle ABC = 119^\circ$, as shown.

Model the situation with an equation, but do not solve for x .



7. Given vertical angles, $m\angle APD = 12x - 8$, $m\angle BPC = 9x + 35$, as shown.

Write an equation that could be used to solve for x .

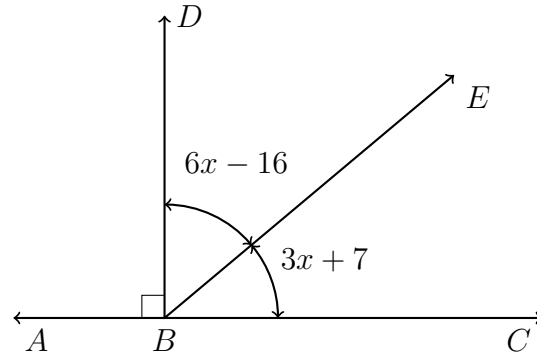


8. In the diagram shown, $\overrightarrow{BD} \perp \overleftrightarrow{AC}$ with angle measures marked. Find x .

Show the check for full credit.

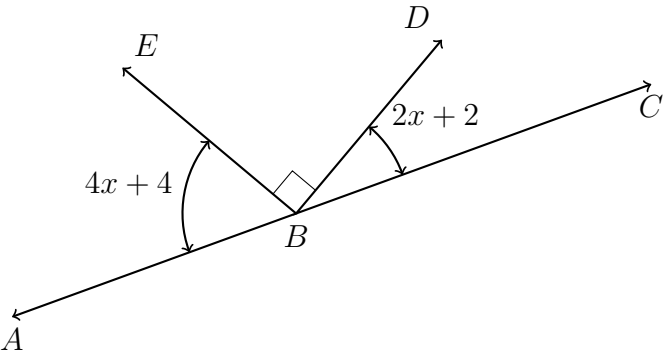
$$m\angle DBE = 6x - 16^\circ$$

$$m\angle EBC = 3x + 7^\circ$$



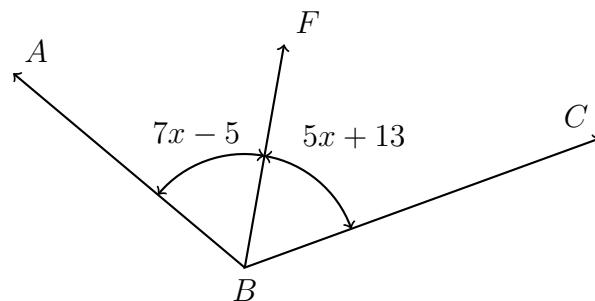
9. Spicy: Given \overleftrightarrow{ABC} , right angle $\angle DBE$, $m\angle ABE = 4x + 4$, and $m\angle CBD = 2x + 2$.

Find $m\angle CBD$.



10. Spicy: Ray \overrightarrow{BF} is the angle bisector of $\angle ABC$. Given that the angle measures are $m\angle ABF = 7x - 5$ and $m\angle CBF = 5x + 13$.

Find $m\angle ABC$.



11. Spicy: Ray \overrightarrow{XL} is the angle bisector of $\angle KXM$. Given $m\angle JXN = 4x - 23$.

Find $m\angle KXL$.

