

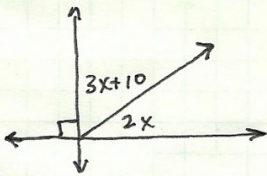
SRHS - Math I

Angle Pairs - Notes

- We looked at several different relationships between pairs of angles - here are the ones we worked with...

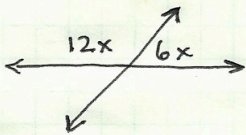
- Complementary Angles [a pair of angles that add up to 90°]

Solve for x :


$$\begin{aligned}(3x + 10) + (2x) &= 90 \\ 5x + 10 &= 90 \\ 5x &= 80 \\ x &= 16\end{aligned}$$

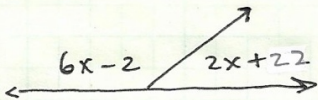
- Supplementary Angles [a pair of angles that add up to 180°]

Solve for x :


$$\begin{aligned}12x + 6x &= 180 \\ 18x &= 180 \\ x &= 10\end{aligned}$$

- Linear Pair [a pair of angles that add up to 180° and are next together so that they form a line]

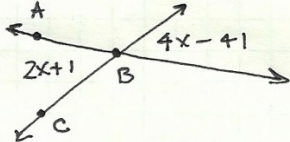
Find the measure of each angle:


$$\begin{aligned}(6x - 2) + (2x + 22) &= 180^\circ \\ 8x + 20 &= 180^\circ \\ 8x &= 160^\circ \\ x &= 20^\circ\end{aligned}$$

$6x - 2 = 118^\circ$
and
 $2x + 22 = 62^\circ$

- Vertical Angles [a pair of angles formed by two lines that intersect - the angles opposite each other are congruent]

Find the measure of $\angle ABC$


$$\begin{aligned}2x + 1 &= 4x - 41 \\ 42 &= 2x \\ 21 &= x\end{aligned}$$

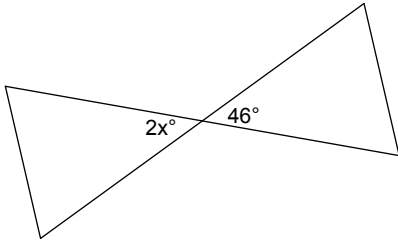
$m\angle ABC = 2x + 1$
 $= 2(21) + 1$
 $= 43^\circ$

- When solving these types of problems, read the directions carefully - at the start of the problem *and* at the end. Some problems will ask you to solve for x (or some other variable) and some will ask you to solve for the missing angle.

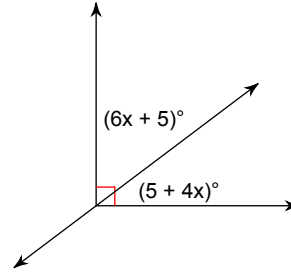
SRHS Math 1

Find the value of x.

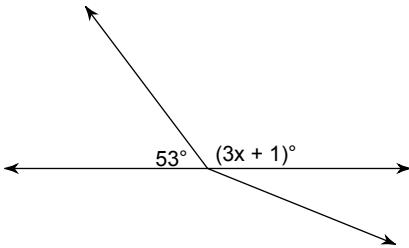
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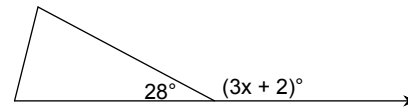
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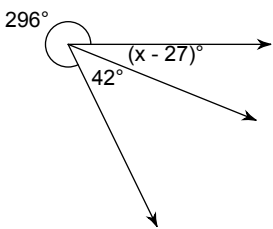
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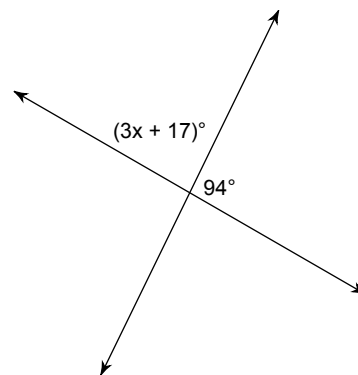
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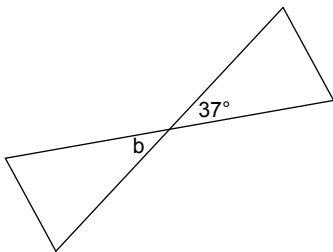


6)

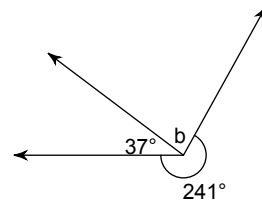


Find the measure of angle b.

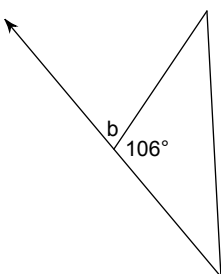
7)



8)



9)



10)

