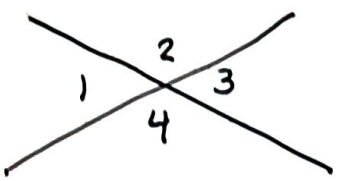
Practice 1-7

Vocab: linear pair
vertical angles
complimentary angles
supplementary angles

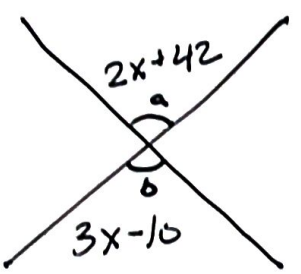
Vertical Angles

vertical angles are congruent $\cong$.



$\angle 1 \cong \angle 3$
$\angle 2 \cong \angle 4$

Ex:

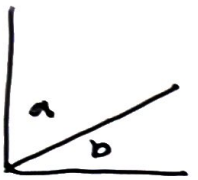


$2x + 42 = 3x - 10$
$-3x \quad -2x$
$42 = x - 10$
$+10 \quad +10$
$52 = x$

$\angle a = 2x+42$
$2(52)+42 = 146 = \angle b$

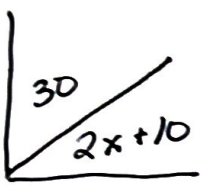
** Practice 1-7 cont ##

Complementary Angles



$\angle a + \angle b = 90^\circ$

Ex:



$30 + 2x + 10 = 90$

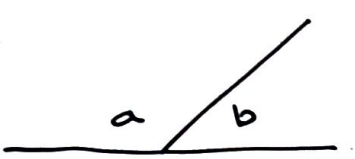
$2x + 40 = 90$

$-40 \quad -40$

$\frac{2x}{2} = \frac{50}{2}$

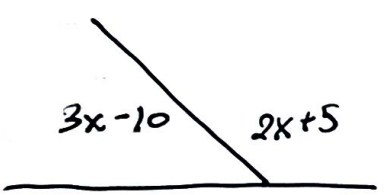
$x = 25$

Supplementary Angles



$\angle a + \angle b = 180^\circ$

Ex:



$2x + 5 + 3x - 10 = 180$

$5x - 5 = 180$

$+5 \quad +5$

$\frac{5x}{5} = \frac{185}{5}$

$x = 37$