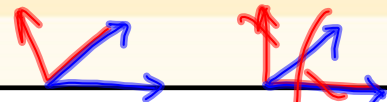


SECTION 1.5

Angle Relationships

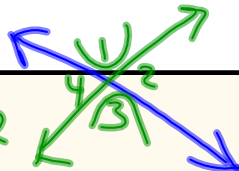
Adjacent Angles:

2 angles that lie in the same plane, share the same vertex, share a side.



$\angle 1 \& \angle 3$

$\angle 4 \& \angle 2$



Vertical Angles:

2 nonadjacent angles formed by the intersection of two lines.

Linear Pair:

pair of adjacent angles whose non common sides are opposite rays



Complementary Angles:

2 angles whose measures add up to 90°

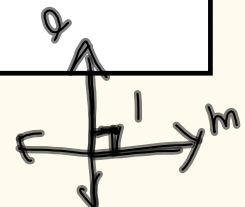
Supplementary Angle:

2 angles whose measures add up to 180°

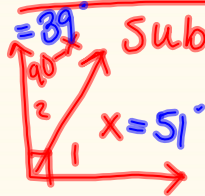
Perpendicular:

2 intersecting lines that form 90° angles.

line $l \perp$ line m



Find the measures of two complementary angles if the difference in the measures of the two angles is 12.



90 =

Subtract

$m\angle 1 - m\angle 2$

$x - (90 - x) = 12$

$x - 90 + x = 12$

$2x = 102$

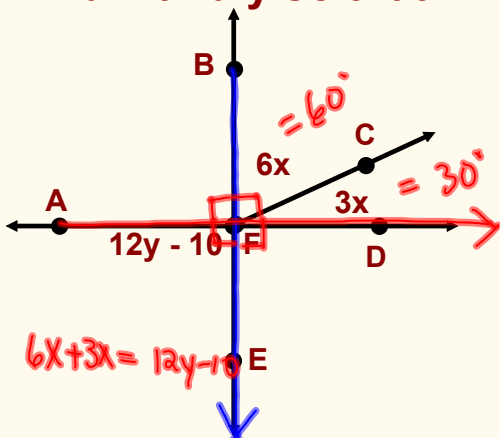
$x = 51$

add up $x + 90^\circ$

↑ equals



Find x and y so that \overline{BE} and \overline{AD} are perpendicular.



$6x + 3x = 12y - 10$

$6x + 3x = 90$

$9x = 90$

$x = 10$

$12y - 10 = 90$

$12y = 100$

$y = 8.3$



Interpret Figures

a) are $\angle LPM$ and $\angle MPO$ adjacent angles?

yes

b) are $\angle OPQ$ and $\angle LPM$ complementary angles?

not

c) are $\angle LPO$ and $\angle QPO$ a linear pair?

