9.3 Classify Angles

Angles are classified into 4 groups

Acute   Right   Obtuse $\angle ABC$ Straight

$< 90°$ $= 90°$ between $90°$ and $180°$ $= 180°$
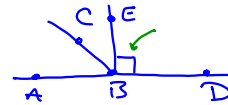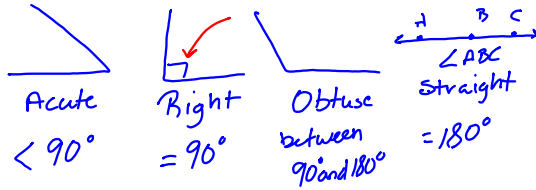
$\angle ABC$ acute
$\angle CBD$ obtuse
$\angle EBD$ Right
$\angle EBA$ (Right) $180° - 90° = 90°$
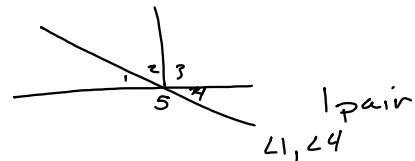$\angle DBA$ straight

180

90
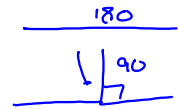
Angle Retionships (Pairs)
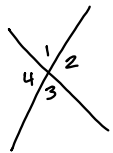
Vertical Angles

– When two lines intersect the angles opposite each other are <u>vertical angles</u>

$\angle 1, \angle 3$ are vertical angles
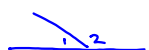$\angle 2, \angle 4$ are vertical angles

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1 pair

$\angle 1, \angle 4$

Complimentary

Because it= the "Right" thing to do

Two angles whose sum is $90°$

$m\angle 1 = 15°$ $m\angle 2 = 75°$
$\angle 1, \angle 2$ complimentary

$m\angle 1 = 21°$ $m\angle 2 = 69°$
$\angle 1, \angle 2$ are

$m\angle 1 = 55°$ $m\angle 2 = 45°$ $= 100°$
$\angle 1, \angle 2$ are not

$\angle A$ and $\angle D$ are complimentary
$m\angle A = 39°$ What is $m\angle D$

$m\angle A + m\angle B = 90°$
$39 + m\angle B = 90°$
$m\angle B = 51°$

Supplementary 'supplements

Two angles whose
sum is 180°

$m\angle 1 = 45 \quad m\angle 2 = 135$
$\angle 1, \angle 2$ are

$m\angle 1 = 91 \quad m\angle 2 = 91 \quad = 182$
$\angle 1, \angle 2$ are not

$\angle A$ and $\angle B$ are Supplementary

$m\angle A = 109°$ what is $m\angle B$

$180° - 109° = 71°$

$m\angle B = 71°$

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2-36 even