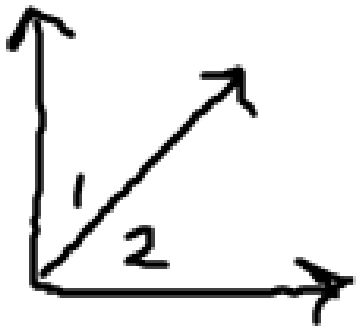
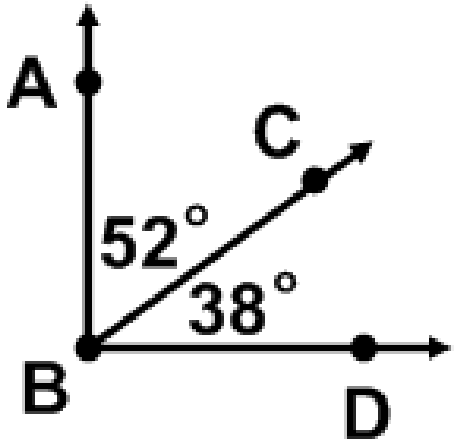
8 - 1
Angles and Transversals

complementary angles: two angles whose sum is 90

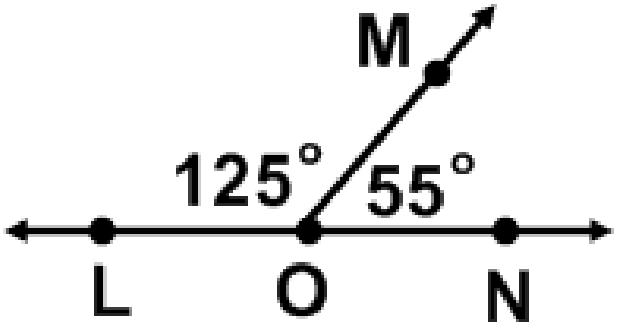
supplementary angles: two angles whose sum is 180

adjacent angles:



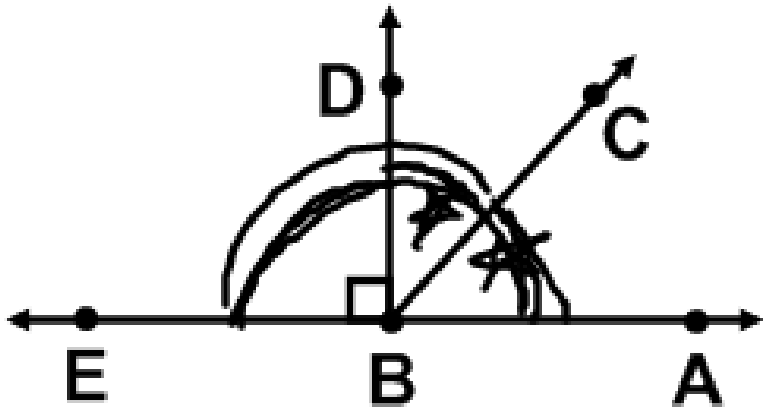


adjacent
complementary



adjacent
supplementary

Name the following...



complementary angles

∠CBA and ∠DBC

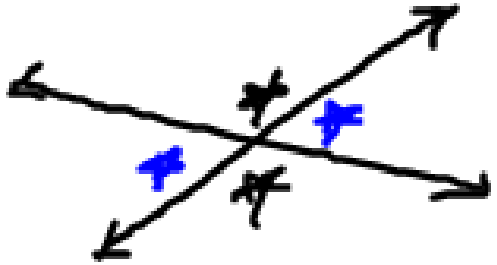
supplementary angles

∠EBD and ∠DBA

adjacent angles

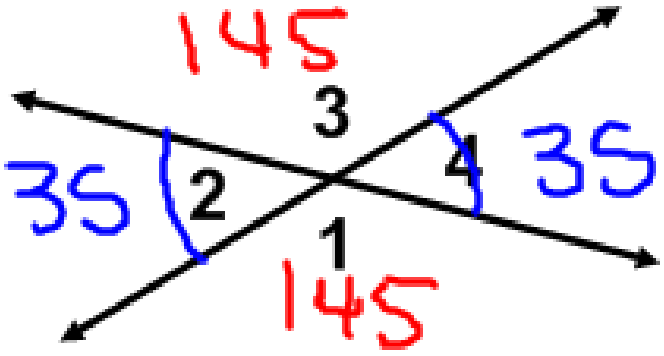
∠DBC and ∠CBA

vertical angles:



** vertical angles are congruent

Ex: m∠1 = 145. Find m∠2, m∠3, and m∠4.

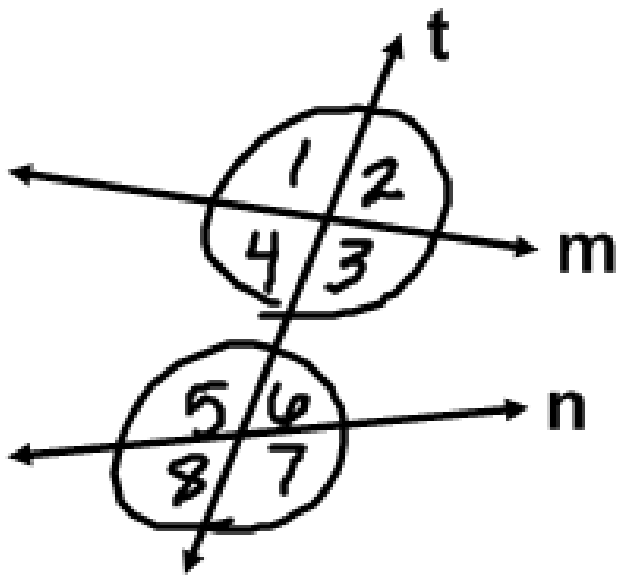


m∠2 = 35°

m∠3 = 145°

m∠4 = 35°

transversal: a line that intersects 2 other lines (t)



corresponding angles: angles in the same "position"

∠1 and ∠5

∠4 and ∠8

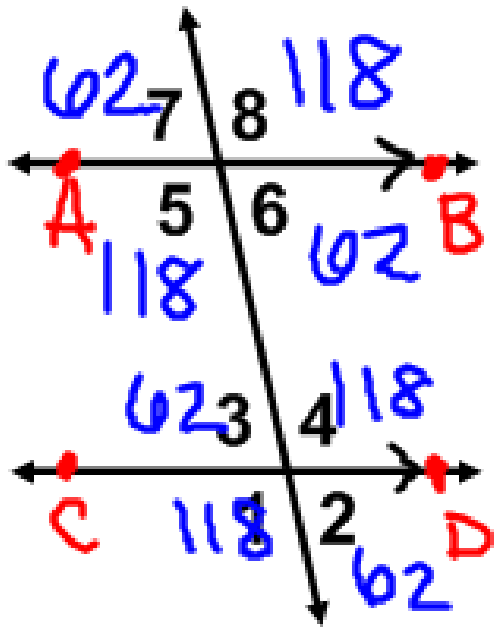
∠2 and ∠6

∠3 and ∠7

Corresponding angles are congruent when two parallel lines are cut by a transversal.

Ex: $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$ and $m\angle 1 = 118°$. Find the remaining angles.

$m\angle 2 = 62$
$m\angle 3 = 62$
$m\angle 4 = 118$
$m\angle 5 = 118$
$m\angle 6 = 62$
$m\angle 7 = 62$
$m\angle 8 = 118$



Homework:

p. 354 #1 - 4, 6 - 9, 14 - 21