Do Now:

Solve and Check

$3x + 3 = 2x - 2$

$-2x \quad -2x$

$x + 3 = -2$

$-3 \quad -3$

$x = -5$

ok

$3x+3=2x-2$

$3(-5)+3=2(-5)-2$

$-15+3=-10-2$

$-12=-12$ ✓

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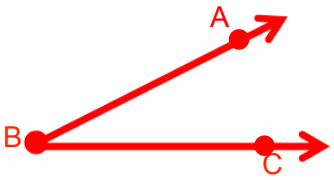
Introduction to Angle Relationships

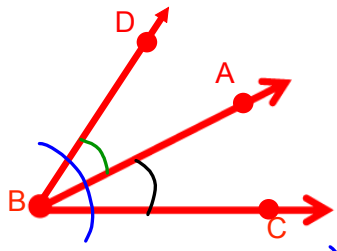
Investigating the characteristics of angles

Naming Angles



$\angle ABC$ $\angle B$

$\angle CBA$



$\angle DBC$ or $\angle CBD$

$\angle DBA$ or $\angle ABD$

$\angle ABC$ or CBA

Vertex must be in the middle

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ACUTE

An angle whose measure is less than 90°

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OBTUSE

An angle whose measure is greater than 90° and less than 180°.

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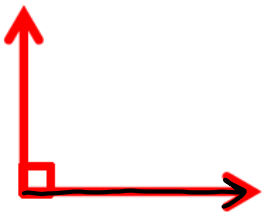
RIGHT

An angle whose measure is exactly 90°



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STRAIGHT

An angle whose measure is exactly 180°

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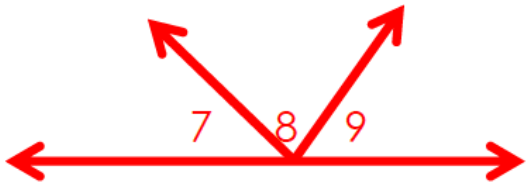
ADJACENT

Two angles that share a common vertex and a common side (right next to)



ex: ∠ 7 is adjacent to ∠ 8

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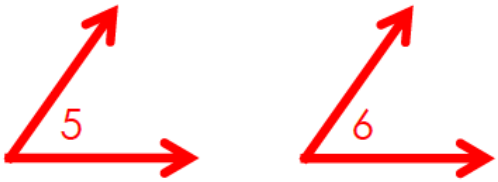
CONGRUENT

Angles that have the exact same measure

Equal



∠ 5 ≅ ∠ 6

Congruent

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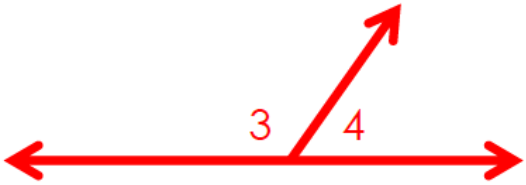
SUPPLEMENTARY

Two or more angles whose sum is 180°.



$\angle 3 + \angle 4 = 180°$

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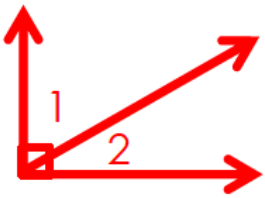
COMPLEMENTARY

Two or more angles whose sum is 90°.



$\angle 1 + \angle 2 = 90°$

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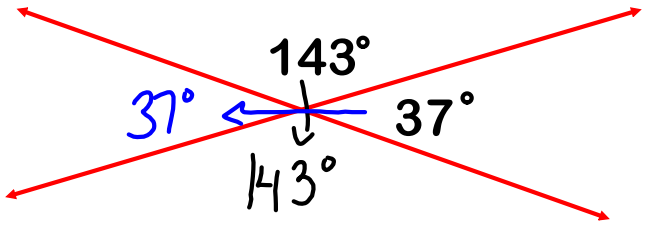
Vertical Angles - look for the "v"

The **angles opposite** each other when two lines cross. Their measures are always equal.



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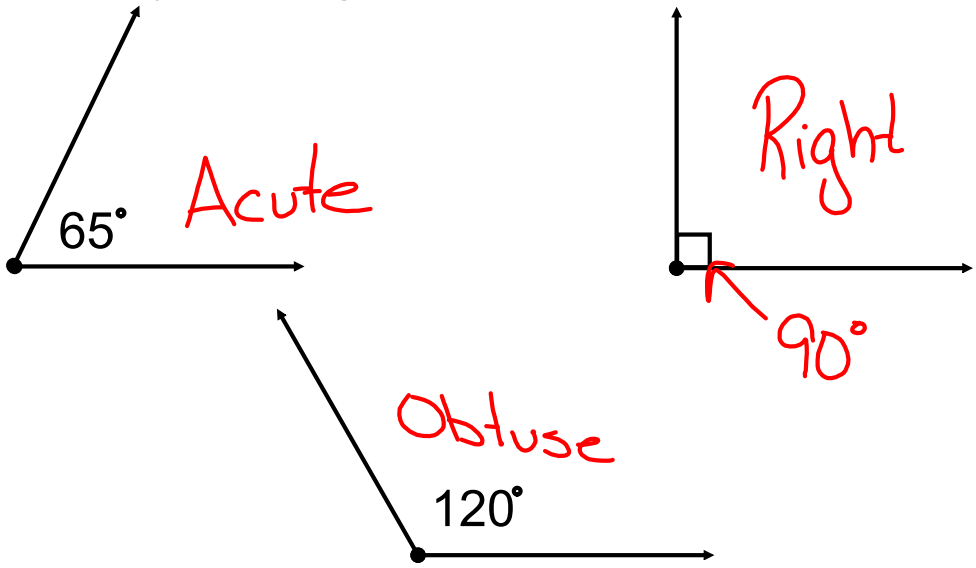
Classify the angles



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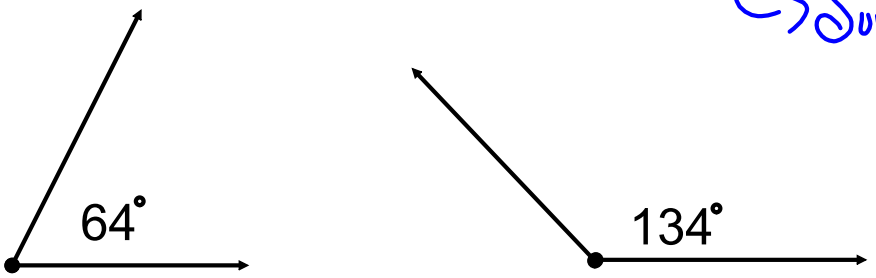
Are these angles complementary?

↳ Sum = 90°



64 + 134
198

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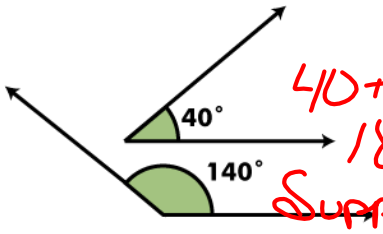
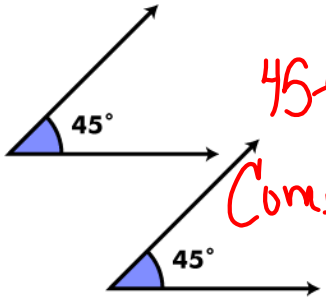
Investigating the characteristics of angles

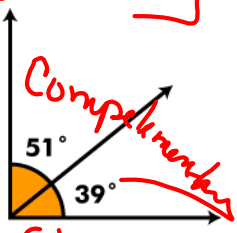
Complementary (C) Supplementary (S) or Neither (N)



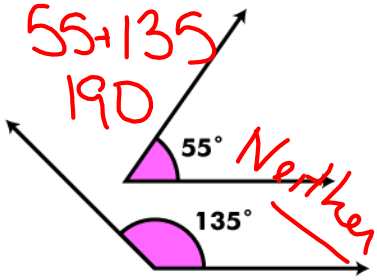
40 + 140
180
Supplementary



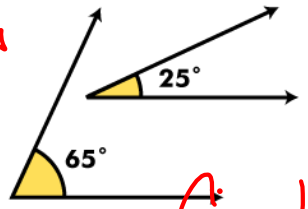
45 + 45 = 90
Complementary



Complementary
51 + 39 = 90



55 + 135
190
Neither



65 + 25
90
Complementary

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