Angles, Angles, Everywhere!

Find the measure of ∠ABC.

1. m∠ABC = __**72°**__
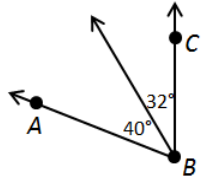
2. m∠ABC = __**140°**__

3. m∠ABC = __**119°**__
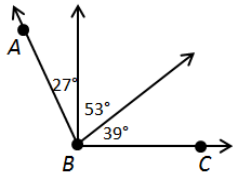
4. m∠ABC = __**141°**__

Find the value of x.

5. x = __**90 - 45 = 45°**__
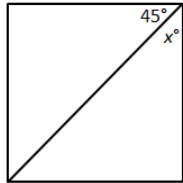
6. x = __**90 - 70 = 20°**__

7. x = __**360 - (135+90) = 135°**__
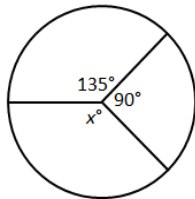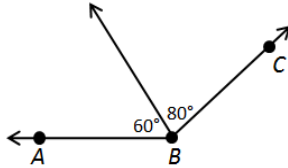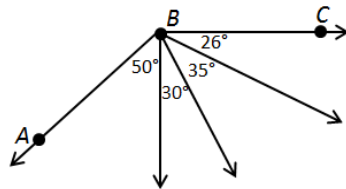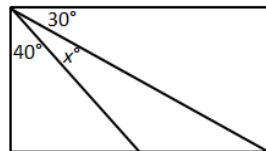
8. x = __**180 - (90+45) = 45°**__
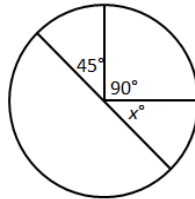
Classifying Angles

Tell if the angle appears to be *acute*, *right*, *obtuse*, or *straight*.

1. ∠CHF __**Obtuse**__
2. ∠CHA __**Right**__
3. ∠EHF __**Acute**__
4. ∠DHC __**Acute**__
5. ∠BHF __**Straight**__
6. ∠BHA __**Acute**__
7. ∠EHG __**Acute**__
8. ∠CHG __**Obtuse**__
9. ∠AHE __**Straight**__
10. ∠GHA __**Obtuse**__
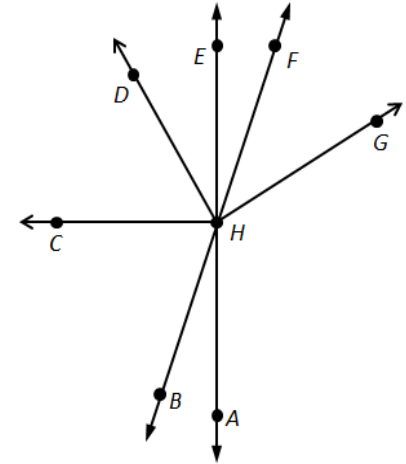
Write each numbered angle in the correct column. Two are done for you.
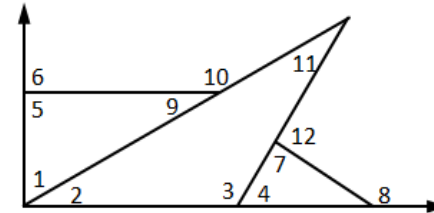
Acute Angles		Right Angles		Obtuse Angles	
∠1	∠9	∠5	∠7	∠3	∠10
∠2	∠11	∠6	∠12	∠8	
∠4					

Missing Measures

Find the angle measure.

1. $m\angle 1 =$ _90-22= 68°_
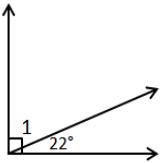
2. $m\angle BME =$ _90+43= 133°_
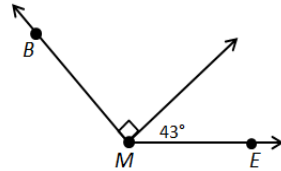
3. $m\angle DNK = 110°$
   $m\angle DNF =$ _110-49= 61°_
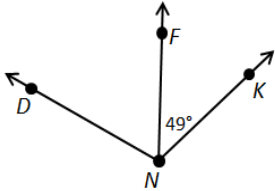
4. $m\angle 2 =$ _180-143= 37°_
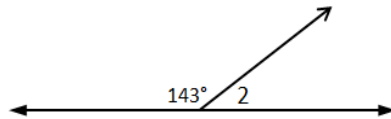
5. $m\angle AQJ =$ _30+84= 114°_

6. $m\angle MQT =$ _84+35= 119°_

7. $m\angle AQT =$ _30+84+35= 149°_
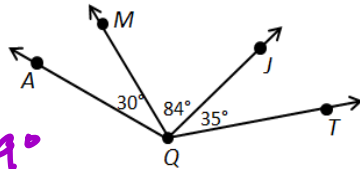
8. $m\angle BDG =$ _180-(76+54)= 50°_

9. $m\angle CDG =$ _180-54= 126°_

10. $m\angle BDF =$ _180-76= 104°_
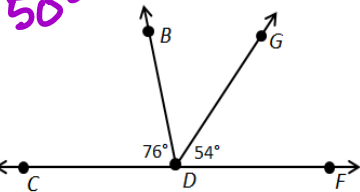
Working With Adjacent Angles

Correctly answer each question below.

Figure A.

1) What is the adjacent angle to $\angle BAC$?

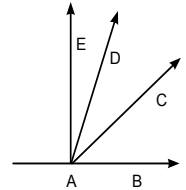   _∠CAD_

2) What is the adjacent angle to $\angle BAD$?

   ∠DAE

3) What is the adjacent angle to $\angle CAE$?

   ∠CAB

4) What two angles are adjacent angles to $\angle CAD$?

   ∠EAD and ∠CAB

Figure B.

1) What are the two adjacent angles to $\angle 3$?

   ∠2 and ∠4

2) What is the smallest adjacent angle to $\angle 7$?

   _∠8_

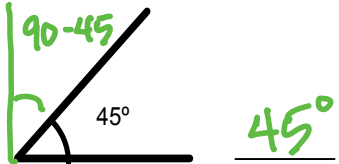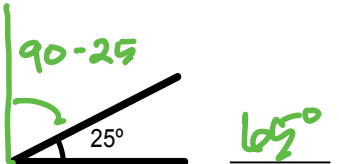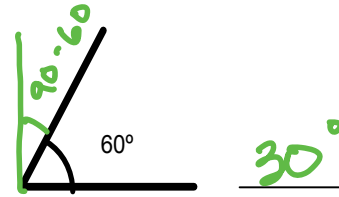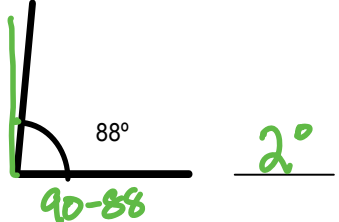3) What are the adjacent angles to $\angle 5$?

   ∠4 and ∠6
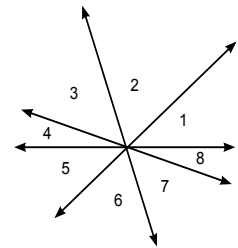
Adjacent: _____

Working With Complementary Angles

Part 1: Give the measurement for the complementary angle for each angle below.

A) 45° $90-45=45°$

F) 62° $90-62=28°$

B) 30° $90-30=60°$

G) 89° $90-89=1°$

C) 20° $90-20=70°$

H) 77° $90-77=13°$

D) 80° $90-80=10°$

I) 38° $90-38=52°$

E) 55° $90-55=35°$

J) 5° $90-5=85°$

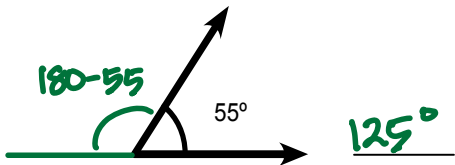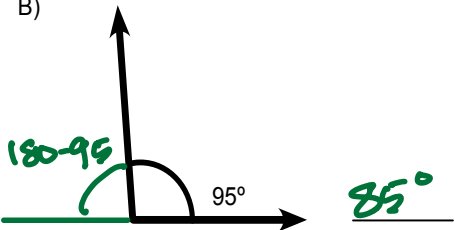Part 2: For each figure below, draw the complementary angle and label its measurement

A)

$90-45$ 45° $45°$

B)

$90-25$ 25° $65°$

C)

$90-60$ 60° $30°$

D)

88° $2°$
$90-88$

Working With Supplementary Angles

Part 1: Give the measurement for the supplementary angle for each angle below.

A) 60° $180-60=120°$

F) 25° $180-25=155°$

B) 110° $180-110=70°$

G) 170° $180-170=10°$

C) 45° $180-45=135°$

H) 82° $180-82=98°$

D) 90° $180-90=90°$

I) 39° $180-39=141°$

E) 150° $180-150=30°$

J) 107° $180-107=73°$

Part 2: For each figure below, draw the supplementary angle and label its measurement

A)

$180-55$ 55° $125°$

B)

$180-95$ 95° $85°$

C)

$180-15$ 15° $165°$

D)

$180-143$ 143° $37°$

Complementary: Sum = 90°

Supplementary: Sum = 180°