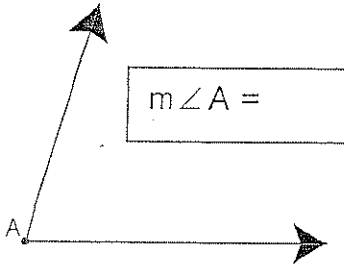Measure these angles using a protractor   Name_____
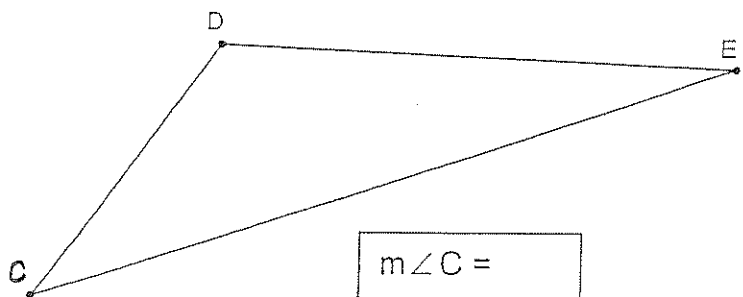
m∠A =
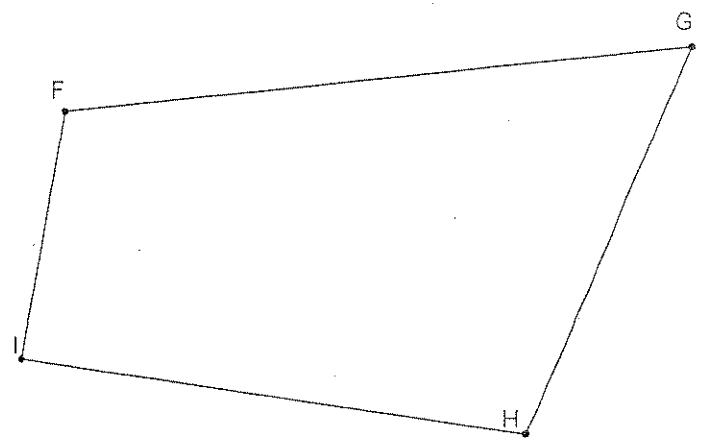
m∠B =

m∠F =
m∠G =
m∠H=
m∠I =

D   E   G

F
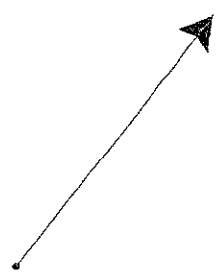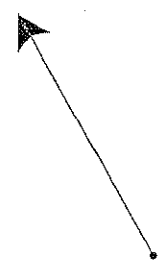
m∠C =
m∠D =
m∠E =

C

I

H
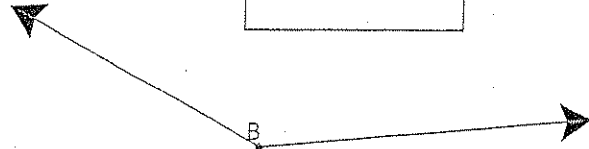
Use the given ray as the initial side of the angle and construct the other ray of the angle paying attention to the rotation. Show the rotation arrow from the initial ray to the ending ray.
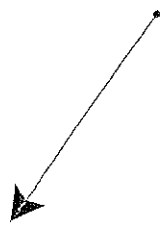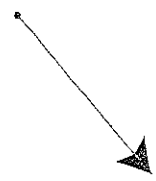
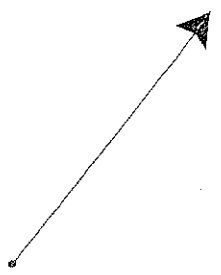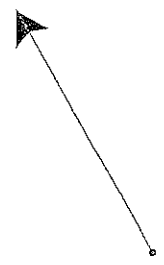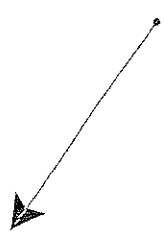1. 50° rotation   2. -120° rotation   3. 60° rotation   4. -75° rotation
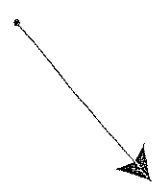
1. -50° rotation   2. 120° rotation   3. -60° rotation   4. 75° rotation

1. Lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are perpendicular at point E. There is a point, T, on the interior of $\angle BED$ such that:

$m\angle TED = 3(2x - 7) + 20$

$m\angle TEB = 9 - 4(20 - 3x)$

Find the measures of the angles.

2. Given that $\angle ACB$ and $\angle MCN$ are vertical angles such that $\angle ACB$ and $\angle ACM$ form a linear pair. Find the measures of the angles if:

$m\angle MCN = 3(8x - 3y)$

$m\angle ACM = 5x - 4(5x - 7y) + 11$

$m\angle ACB = 3 - 2(3y - 9x)$