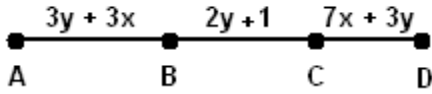


CP Geometry
4 Segment / Angle Addition Problems

Name: _____

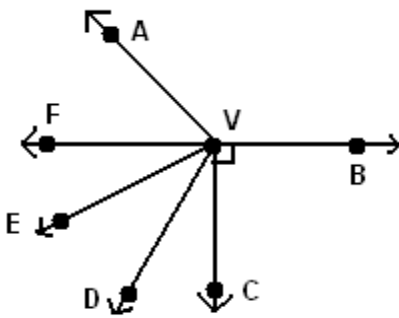
[#1]



Given: $AD = 45$
 BC is 7 greater than CD

Find: $x = ?$
 $y = ?$
 $AC = ?$

[#2]

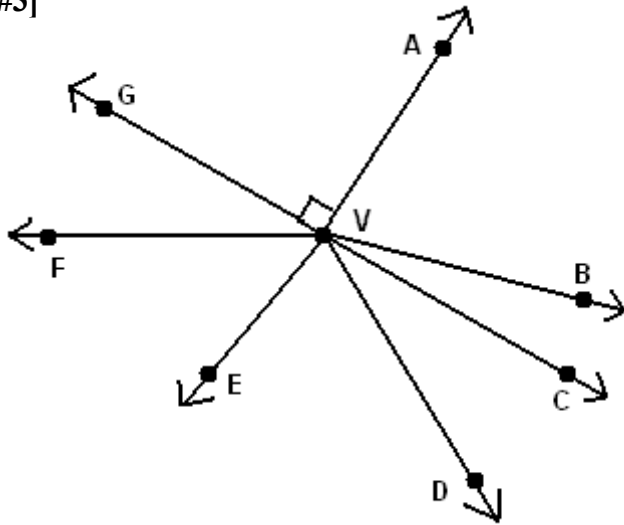


Given: $m\angle AVF = (3y + 8x)^\circ$
 $m\angle AVB = (8y + 7x - 1)^\circ$
 $m\angle FVE = (5x + y)^\circ$
 $m\angle EVD = (27x - 7y)^\circ$
F, V, B are collinear

\vec{VE} bisects $\angle FVD$

Find: $m\angle DVC$

[#3]



Given: $m\angle AVB = (28y + 4x)^\circ$
 $m\angle BVC = (10y + 2x)^\circ$
 $m\angle CVD = (y - 10x)^\circ$
 $m\angle DVE = (5y - 8x)^\circ$
 $m\angle GVF = (5x + 21y)^\circ$

Find: $x =$
 $y =$

$m\angle FVD =$

G, V, C are collinear

$\angle GVF \cong \angle CVD$

\vec{VE} bisects $\angle FVD$

[#4] Three people, A, B, and C stand on a straight road. B is between the other two. The distance from A to C is eight more than twice the distance from B to C. If the distance from A to B is twenty, find the distance between A and C.