

Assignment #10

Angle Addition Postulate

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

1. D is interior to  $\angle ABC$ .  $m\angle ABC = 7x - 2$ ,  $m\angle ABD = x + 22$ ,  $m\angle DBC = 3x$ . Solve for  $x$ .
2. H is interior to  $\angle EFG$ .  $m\angle EFH = 52$ ,  $m\angle HFG = 5x - 2$ ,  $m\angle EFG = 20x + 5$  Solve for  $x$ .
3. M is interior to  $\angle JKL$ .  $m\angle JKL = 12x + 17$ ,  $m\angle JKM = 7x - 2$ ,  $m\angle MKL = 7x + 3$  Solve for  $x$ .
4. Q is interior to  $\angle NOP$ .  $m\angle NOQ = 4x - 5$ ,  $m\angle QOP = 2x + 8$ ,  $m\angle NOP = 5x + 13$  Solve for  $x$ .
5. ST bisects  $\angle RSU$ .  $m\angle RSU = 14x + 4$ ,  $m\angle RST = 6x + 3$