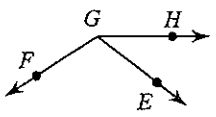
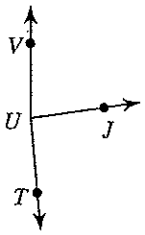
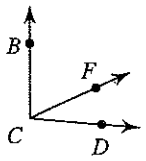
11) $m\angle HGF = 16x + 4$, $m\angle EGF = 110°$, and $m\angle HGE = 3x + 11$. Find x.



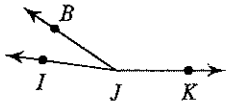
12) $m\angle VUT = 175°$, $m\angle VUJ = 17x - 3$, and $m\angle JUT = 17x + 8$. Find x.



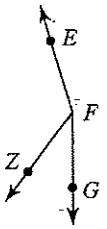
13) $m\angle FCD = x + 41$, $m\angle BCF = x + 78$, and $m\angle BCD = 95°$. Find x.



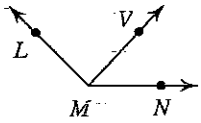
14) Find x if $m\angle BJK = 146 + 2x$, $m\angle IJK = 172°$, and $m\angle IJB = 2x + 26$.



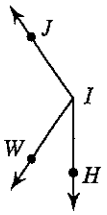
15) $m\angle GFZ = 38°$, $m\angle ZFE = 2x + 125$, and $m\angle GFE = x + 163$. Find x.



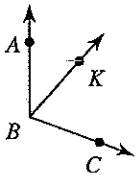
16) Find x if $m\angle LMN = 135°$, $m\angle LMV = -1 + 45x$, and $m\angle VMN = 23x$.



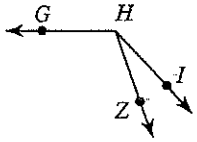
17) Find $m\angle HIW$ if $m\angle WIJ = 10x$, $m\angle HIJ = 145°$, and $m\angle HIW = 2x + 13$.



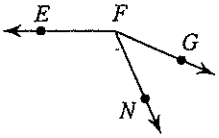
18) $m\angle ABC = 17x + 8$, $m\angle ABK = 42°$, and $m\angle KBC = 12x - 4$. Find $m\angle ABC$.



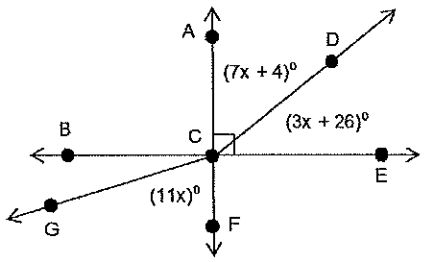
19) $m\angle ZHG = 11x - 1$, $m\angle IHZ = 24°$, and $m\angle IHG = 12x + 13$. Find $m\angle IHG$.



20) $m\angle GFN = 4x + 10$, $m\angle NFE = 14x + 3$, and $m\angle GFE = 157°$. Find $m\angle NFE$.



Example 2: Solve for x and find $m\measuredangle GCF$



Example 3: Find the measures of two supplementary angles if the measure of the larger angle is 31° bigger than the smaller angle.

Example 4: Find the measures of two complementary angles if the difference in size between the two angles is 21°.

Example 5: Find the measures of two supplementary angles if one angle is one-fourth the measure of the other.

Example 6: The measure of an angle is 10 more than 3 times the size of its complement. Find the measures of both angles.

Example 7: The measure of an angle is 62 less than 10 times the size of its supplement. Find the measures of both angles.

Example 8: $\measuredangle ABD$ and $\measuredangle DBC$ are supplements. $m\measuredangle ABD$= x + 35 and $m\measuredangle DBC$= 4x – 5. Solve for x and find $m\measuredangle DBC$.

Example 9: $\measuredangle ABD$ and $\measuredangle DBC$ are complements. $m\measuredangle ABD$= 3x + 5 and $m\measuredangle DBC$= 11x + 1. Solve for x and find $m\measuredangle ABD$.