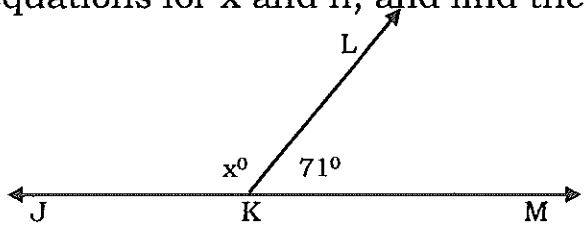
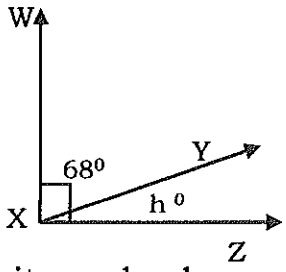
Angle Relationship Station #4
Writing and Solving Equations with Complementary and Supplementary Angles: One-Step Equations CODEBREAKER

1.) Find the letters for *all* of the correct equations to represent these diagrams. Unscramble the letters to form a word. Then, solve the equations for x and h, and find the sum of x and h.

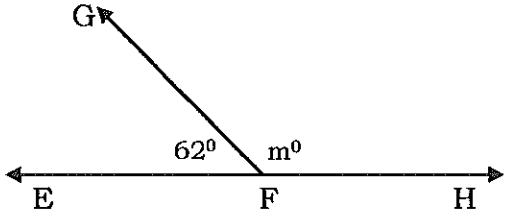


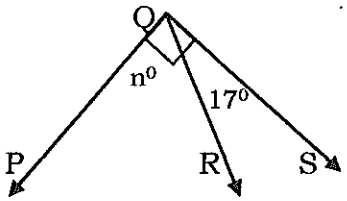
L	x + 71 = 180
R	90 = x + 71
I	180 = 71x
G	180 = 71 + x
A	71 + x = 180



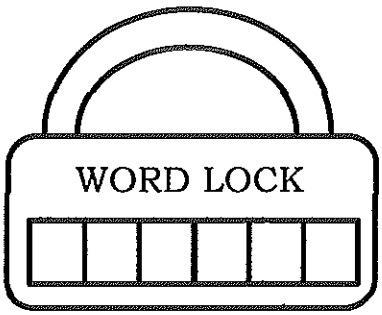
H	68 − h = 90
E	68 + h = 90
N	90 − 68 = h
T	90 + 68 = h
S	90 = 68 + h

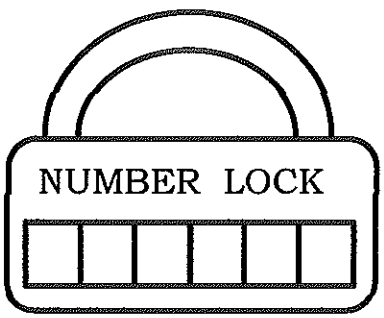
2.) Write and solve an equation based on the diagrams. Find the difference of the values of m and n, and double this difference.





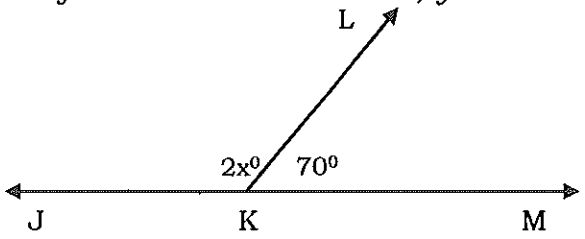
3.) A 144⁰ angle is supplementary with an angle that measures d degrees. Write and solve an equation to find the value of d. Then find one-fourth of the value of d.



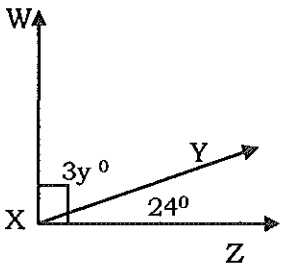


Angle Relationship Station #5
Writing and Solving Equations with Complementary and Supplementary Angles: Two-Step Equations CODEBREAKER

1.) Find the letters for all of the correct equations to represent these diagrams. Unscramble the letters to form a word. Then, solve for x and y. Find the sum of x, y and the measure of angle JKL.

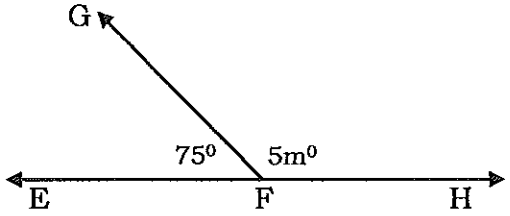


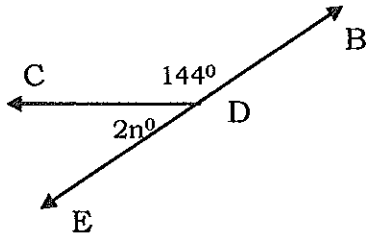
M	$2x = 70$
H	$2x + 70 = 180$
A	$90 = 70 + 2x$
R	$180 = 70 + 2x$
C	$2x - 70 = 180$



G	$90 = 24 + 3y$
I	$3y + 24 = 90$
T	$90 - 24 = 3y$
N	$90 + 3y = 24$
L	$3y - 24 = 90$

2.) Write and solve an equation based on the diagrams. Solve for me and n, then find the greatest common factor of m and n.





3.) Use the diagram to solve for y. Triple the value of y and subtract 3.