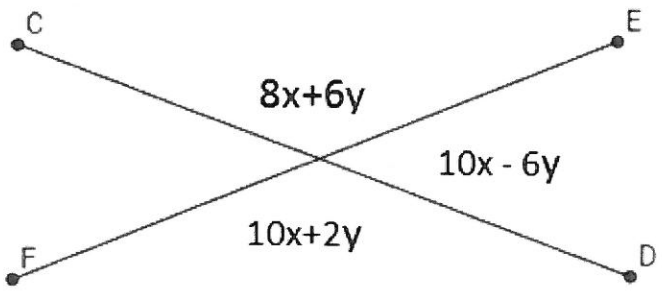
Name: _____ Period:_____ Date:_____

2.5 Proof Practice and Extra Review

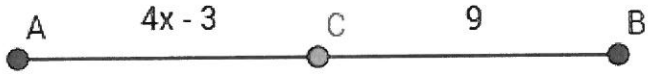
1) Solve for x and write an algebraic proof for the equation. $\frac{1}{2}(4x + 10) = 5 - 3x$

2) Solve for x and write an algebraic proof for the equation. $\frac{1}{3}x + 1 = -\frac{1}{3}x - 8$

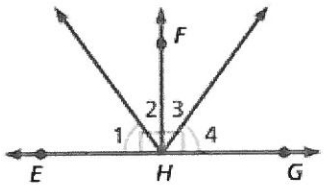
3) Find the measure of each angle. (Hint: You must set up a system of two equations)



4. Given C is a midpoint, prove x = 3.



Statements	Reasons
B is a Midpoint	
AC = CB	
4x – 3 = 9	Substitution
	Division Property of Equality



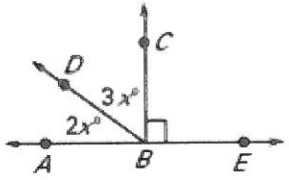
5. Given $m\angle 1 = m\angle 4$ and $\overleftrightarrow{EG} \perp \overleftrightarrow{FH}$, prove $m\angle 2 = m\angle 3$.

Statements	Reasons
	Given
	Given
$m\angle EHF = 90^\circ, m\angle FHG = 90^\circ$	
	Transitive Property
$m\angle 1 + m\angle 2 = m\angle 3 + m\angle 4$	Substitution
	Substitution

6. x = _____

$m\angle ABD$ = _____

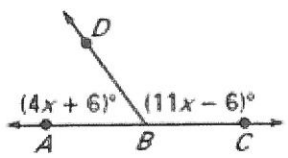
$m\angle DBC$ = _____



x = _____

$m\angle ABD$ = _____

$m\angle DBC$ = _____



x = _____

$m\angle ABD$ = _____

$m\angle DBC$ = _____