Name: _____ Geometry
Date: _____ Review
Class: _____ Graded Homework 1

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth. Multiple Choice Problems are worth 3.
NO WORK = ZERO CREDIT

1) [3] The midpoint of $\overline{AB}$ is $M(4,2)$. If the coordinates of A are $(6,-4)$, what are the coordinates of B?

(1) $(1,-3)$ (3) $(5,-1)$
(2) $(2,8)$ (4) $(14,0)$

2) [3] $\overline{TY}$ has point U on it breaking it into two parts that have the ratio TU:UY = 2:3. If TU = 2x + 6 and UY = 4x, find and explain the value of x.

3) [3] Line ℓ passes through the point $(5,3)$ and is parallel to line k whose equation is $5x + y = 6$. An equation of line ℓ is

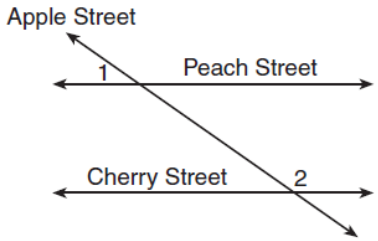
(1) $y = \frac{1}{5}x + 2$ (3) $y = \frac{1}{5}x - 2$
(2) $y = -5x + 28$ (4) $y = -5x - 28$

4) [2] Simplify $\sqrt{180}$

5) [3] What is the slope of a line perpendicular to the line whose equation is $3x - 7y + 14 = 0$?

(1) $\frac{3}{7}$ (3) 3
(2) $-\frac{7}{3}$ (4) $-\frac{1}{3}$

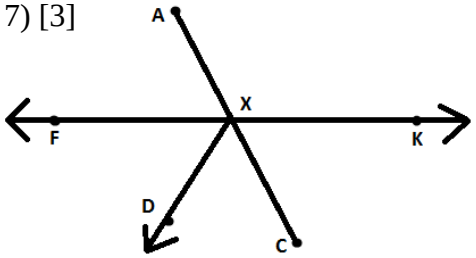
6) [3] Peach Street and Cherry Street are parallel. Apple Street intersects them, as shown in the diagram below.



If $m\angle 1 = 2x + 36$ and $m\angle 2 = 7x - 9$, what is $m\angle 1$?

(1) 9
(2) 17
(3) 54
(4) 70

7) [3]



If m<FXD = 7x + 12, m<KXC = 6x + 16, and m<FXC = 15x + 17, find and explain m<FXC.

8) [3]

The endpoints of $\overline{AB}$ are $A(3,-4)$ and $B(7,2)$. Determine and state the length of $\overline{AB}$ in simplest radical form.