Name: _____

CC Geometry Homework

Slope and Parallel Lines

1) To prove that two non-intersecting line segmemts are parallel, show that the

A) slopes of the two line segments are equal

B) two line segmemts have the same length

C) two line segmemts have the same midpoint

D) slopes of the two line segmemts are negative reciprocals

2) What is the slope of the line that passes through points (-1,5) and (2,3)?

3) What is the slope of the line that passes through the points (1,3) and (3,7)?

4) The vertices of a triangle are P(-1,4), Q(6,-3), and R(2,9). Find the slope of each side of the triangle.

5) In quadrilateral ABCD, $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$. If the slope of $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are $\dfrac{3}{5}$ and $\dfrac{9}{x}$, respectively, then what is the value of x?

6)   Show that the line joining A(-4,-1) and B(3,1) is parallel to the line joining C(4,4) and D(-3,2).

7)   Given: A(1,-1), B(5,7), C(0,4), and D(3,k)

   (**a**) Find the slope of $\overleftrightarrow{AB}$.

   (**b**) Express the slope of $\overleftrightarrow{CD}$ in terms of k.

   (**c**) If $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$, find the value of k.

1) A

2) $-\dfrac{2}{3}$

3) 2

4) slope PQ = -1, slope QR = -3, slope PR $= \dfrac{5}{3}$

5) 15

6) slopes of AB and CD $= \dfrac{2}{7}$

7) (a) 2; (b) $\dfrac{k-4}{3}$; (c) 10