1. **Multiple Choice**

1. Use the figure below. (2 points)

For the cube shown,  and are \_\_\_\_\_\_\_\_\_\_\_.

[A] Perpendicular lines [B] oblique lines

[C] Skew lines [D] parallel lines

2. Find *m*1 in the figure below.  And  are parallel.

[A]  [B] 

[C]  [D] 

<1

2. Which linear system represents perpendicular lines?

[A]  [B]  [C]  [D] 

4. Write an equation of line which it is parallel to the given line passing through point (0, -3)

[A]  [B] 

[C]  [D] 

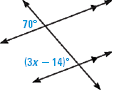
5. Find the slope of the line passing through the points *A* (–1, –3) and *B* (–2, –2).

[A]  [B]  [C]  [D] 

6. Find .

5x-24

[A] 10 [B] 19 [C] 5 [D] 27.25



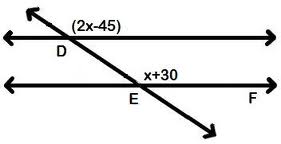
7. A line perpendicular to  is \_\_\_\_\_\_\_\_\_\_\_.

[A]  [B]  [C]  [D] 

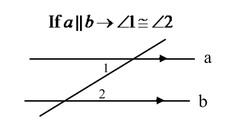
8. Which line has a zero slope?

|  |  |
| --- | --- |
| [A] | [B] |
| [C] | [D] |

**B. Short Answers.**

[](http://www.google.com/imgres?sa=X&biw=1366&bih=595&tbm=isch&tbnid=i6sN_nmlxBs66M:&imgrefurl=http://ehsklein.pbworks.com/w/page/11881011/3-2%20Angles%20Formed%20By%20Parallel%20Lines%20and%20Transversals&docid=YUeW2Q79EkrqKM&imgurl=http://ehsklein.pbworks.com/f/CorrespondingAngles.jpg&w=352&h=181&ei=boCgUrDNLrDNsQTxgoCoCw&zoom=1&iact=rc&dur=437&page=2&tbnh=134&tbnw=261&start=18&ndsp=25&ved=1t:429,r:40,s:0,i:207&tx=68&ty=82)1.a. Find the value of ***x*** for which lines ***l*** and ***m*** are parallel. **Show work of the solving**. (2 points)

b. **Explain** your answer using **geometry concept**. (2 points)



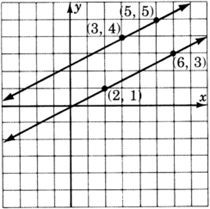
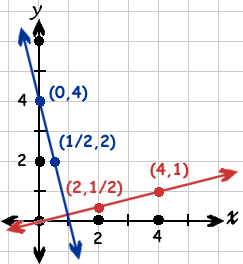
2. State the type of angle pair given in the diagram. (2 points)

3. Write an equation of the line passing through the point (10, 3) and ***perpendicular*** to the line 

(4 points)

4. Write the slope-intercept form of the equation of the line passing through the point ( 3, 1) and **parallel** to the line. (4 points)

5. Line *l* is parallel to line *n*. and Find the value ***x***. Show work. (4 points)

6. Determine if the lines are parallel, perpendicular or neither. Show work in order to get full credit.(6 points)

Slope of line : Slope of :

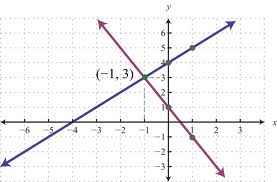
Slope of line : Slope of :

Conclusion: Conclusion:

7. Give the **slope** and list the coordinates of **1 point** for the following linear equations:

1. y – 8 = ½ ( x – 3) (2 points)
2. y + 2 = 2 ( x - 4) (2 points)
3. x = -10 ( 4 points)
4. y = 3 ( 4 points)
5. 6x – 3y = 12 (4 points)

A

[](http://www.google.com/imgres?biw=1366&bih=595&tbm=isch&tbnid=tJQ3elEzgcpSFM:&imgrefurl=https://new.edu/resources/3274&docid=IRS1QlVhFpTWoM&imgurl=http://images.flatworldknowledge.com/redden/redden-fig04_x002.jpg&w=1000&h=658&ei=4oSgUvS7JI3lsATmqoHAAQ&zoom=1&iact=rc&page=2&tbnh=136&tbnw=207&start=21&ndsp=27&ved=1t:429,r:27,s:0,i:165&tx=124&ty=70)

B

1. **Open Response**

1. Refer to the diagram on the right.

The diagram is a map of two streets A and B

a) Find the slopes of Street A and B. (4 points)

b) (3 points) Are these streets perpendicular? Why or why not? **Explain** with **math calculations** and **geometry concepts.**

c) The city plans to construct a highway **parallel** to street B through the location (0, 0).

1. What would the slope of the highway be? (1 point)

ii) Give the **equation** that would represent the new highway. **Explain or show work**. (2 points)