Mathematics 9

The Slope of a Line

Date:

Grid Lines: ***The vertical and _____ lines which form the grid on graph paper.***

Grid Point: ***Any point of _____ of two _____ _____ on graph paper.***

Slope: ***A number which represents the _____ or _____ of a line.***

AMOUNT OF SLOPE:

Moderate Slope: .....makes an angle of _____ with the horizontal.

Gentle Slope: .....makes an angle between _____ and _____ with the horizontal.

Steep Slope: .....makes an angle between _____ and _____ with the horizontal.

Zero slope: .....makes an angle of _____ with the horizontal.

DIRECTION OF SLOPE: Lines many be ***vertical, horizontal, uphill*** or ***downhill*** in direction.

Uphill: ***Ascending, _____ or _____ to the right.***

Downhill: ***_____ , _____ or _____ to the right.***

Steps For Finding A Numerical Value For Slope:

1. Find two ***grid points*** on the line and mark them with dots.
2. Start at the left grid point.
3. Use a ruler to draw a horizontal line to the right from this point until you are vertically above or below the second grid point. This horizontal line is the ***run***.
4. Now draw a vertical line from the right end of the ***run*** either up or down to connect to the second grid point. This vertical line is the ***rise***.
5. Count the graph squares to determine the length of the ***run*** and the ***rise***.
6. The ***run*** is always positive.
7. The ***rise*** is positive if it is going upwards from the ***run***, or is negative if the ***rise*** is going downwards from the ***run***.
8. $$SLOPE = \frac{rise}{run}$$
9. Reduce the answer for slope to a fraction in lowest terms – avoid decimals or mixed numbers.

SUMMARY:

Uphill Slope:.....corresponds to slope values which are _____ .

Downhill Slope:.....corresponds to slope values which are _____ .

Moderate Slope: .....corresponds to a slope value of _____ or _____ .

Gentle Slope: .....corresponds to slope values which are _____ than _____.

Steep Slope: .....corresponds to slope values which are _____ than _____.

Zero slope: .....corresponds to a slope value of _____ .

Graph # ____ has the **steepest slope** of all because its slope value is _____.

Graph # ____ has the **gentlest slope** of all because its slope value is _____.

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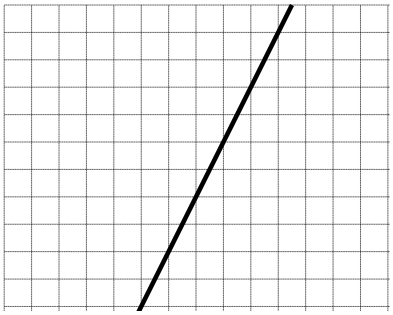
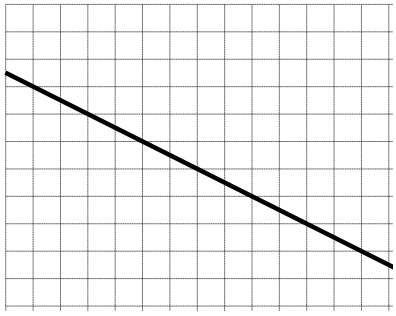


1.	amount of slope:	direction of slope:	slope =



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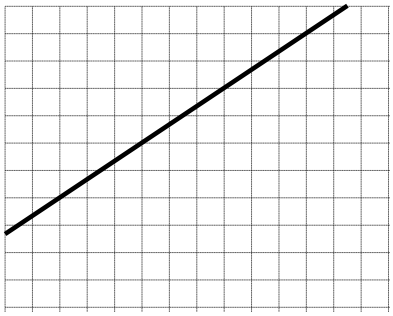
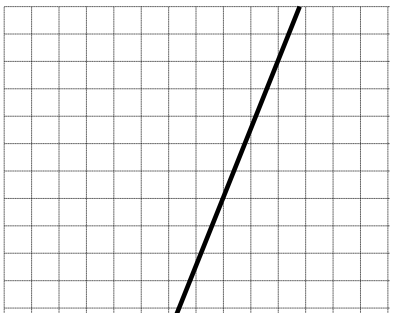
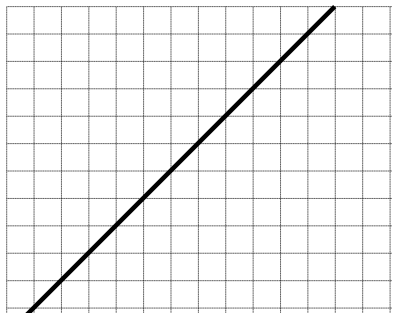


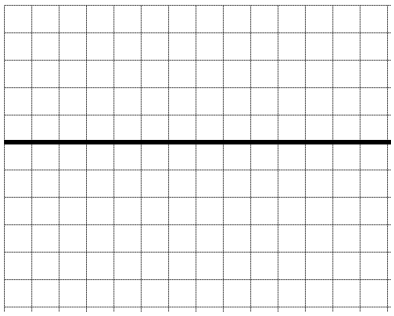
3.	amount of slope:	direction of slope:	slope =



4.	amount of slope:	direction of slope:	slope =

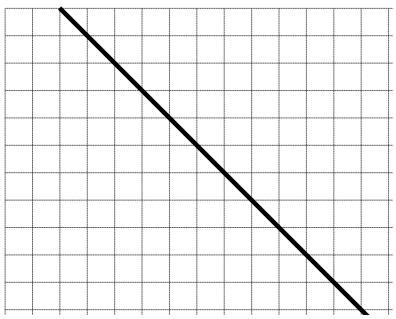


5.	amount of slope:	direction of slope:	slope =

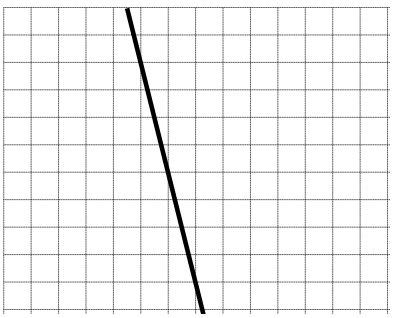


6.	amount of slope:	direction of slope:	slope =

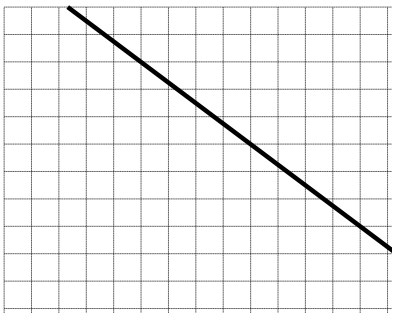
7.	amount of slope:	direction of slope:	slope =



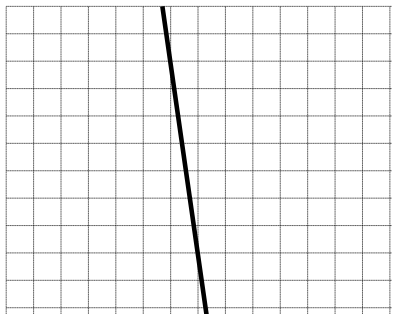
8.	amount of slope:	direction of slope:	slope =



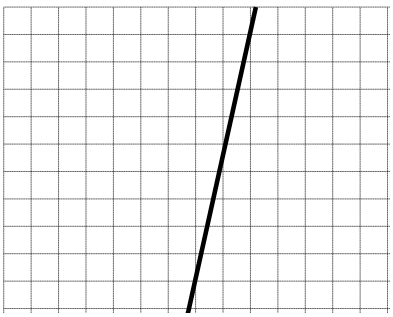
9.	amount of slope:	direction of slope:	slope =



10.	amount of slope:	direction of slope:	slope =



11.	amount of slope:	direction of slope:	slope =



12.	amount of slope:	direction of slope:	slope =