**1. PLOTTING POINTS**

|  |  |
| --- | --- |
| Plot A (-5, 3), B (1, 3), C (1,-3) and D (-5,-3). Connect these points with line segments.  Plot E (1, 8), F (5, 8), G (5, 2) and H (-1. 2). Connect these points with line segments.  Draw these line segments between points:  A and E  B and F  D and H  C and G |  |

**2. CALCULATING SLOPE: (Remember run is always positive)**

***a) FROM A GRAPH***

|  |  |  |  |
| --- | --- | --- | --- |
| Rise:  Run:  Slope: | Rise:  Run:  Slope: | Rise:  Run:  Slope: | Rise:  Run:  Slope: |

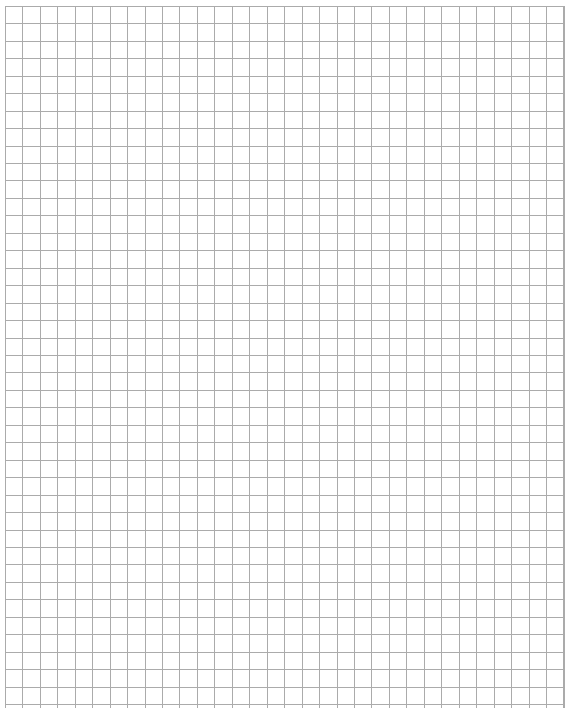
***b) FROM GIVEN POINTS USING THE SLOPE FORMULA***

Calculate the slope of the line that goes through points A (-3, -2) and B (6, 1)

**3. GRAPHING LINES: *m = slope and b = y intercept (where line crosses y axis)***

|  |  |
| --- | --- |
| **a) POINT AND A SLOPE**  Draw the line that has m = -2/3 and b = 8 |  |
| **b) TABLE OF VALUES**  Using the table of values, create 3 points to draw |
| **c) SLOPE & Y-INTERCEPT EQUATION**  Draw without using table of values. (Use m and b) |

**4. DETERMINING THE EQUATION FROM THE GRAPH (Scale for each axis 1 square = 1 unit)**



E

F

D

C

B

A

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Line AB** | **Line BC** | **Line CD** | **Line DE** | **Line EF** | **Line FA** |
|  |  |  |  |  |  |

Determine the equation in y = mx + b form for the following lines:

**DETERMINING THE EQUATION GRAPHICALLY**

***In each question, graph the line described then determine its equation and write it in the space provided.***

|  |  |  |
| --- | --- | --- |
| 1. The line through the points (2,5) and (–2,–7). | 2. The line through the points (1,0) and (3,8). | 3. The line through the origin and the point (–6,4). |
| 4. The line with *x*-intercept 4 and *y*-intercept 6. | 5. The line with *x*-intercept –3 and *y*-intercept 4. | 6. The line with y-intercept 5 and through the point (–4,–3). |
| 7. The line with *y*-intercept –3 and parallel to the *x*-axis. | 8. The line with slope  and *x*‑intercept –3. | 9. The line with slope  passing through the point (–5,–7). |