A linear relationship can be written in the standard form **Ax + By + C = 0** and slope y-intercept form **y = mx + b**

**Graph: 8x - 4y - 4 = 0**

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| **METHOD 1: SLOPE and Y-INTERCEPT** | **METHOD 2: USING X AND Y - INTERCEPTS** |
| **Step1:** Rearrangethe equation in slope y-intercept form as y = mx + b**Step2:** Determine the slope (m) and y-intercept (b) **Slope (m) =\_\_ and y-intercept (b) =\_\_** **Step3:** Plot the y-intercept first. From there, move right (always) as much as run, then move up if slope + or down if slope - to find a second point and connect with an extended line.**X25 grid** | **Step1:** To find the x-intercept, let y = 0 and solve for x.**Step2:** To find the y-intercept, let x = 0 and solve for y.**X25 grid** |

**METHOD 3: TABLE OF VALUES (y=mx +b)**



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| **X** |  **Y = \_\_\_\_\_\_\_**  | **POINTS** |
| **-1** | **=** | **A( , )** |
| **0** |  | **B( , )** |
| **1** |  | **C( , )** |

**Ex2.** Graph $y=\frac{1}{3}x-1$ using a table of values.



PRACTICE

## Graphing

1. Graph each equation using a table of values

a) y = 3x – 1 b) y = -2x + 2 c) y = ½ x + 4

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1. Graph each equation using the slope and y-intercept.

a) y = 2x + 3 b) y = ½x - 2 c) x + y + 1 = 0

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1. Graph each equation by determining the intercepts.

a) x + y = 4 b) 2x + y = 6 c) 2x – 5y = 10

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1. Graph each equation using the most suitable method.

a) y = 5x + 2 b) 3x – y = 6 c) y = 3

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