

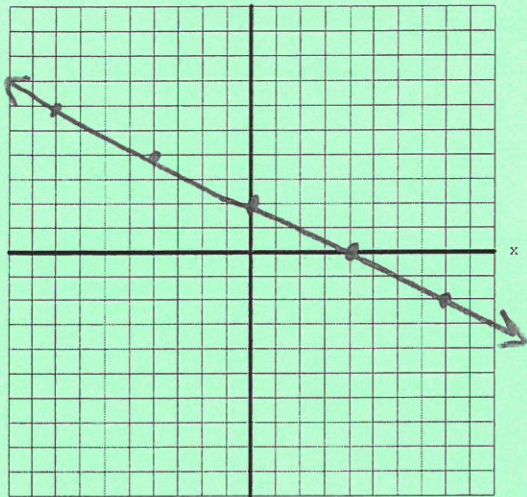
Objective: Find the key features of a linear function given in standard form.

Key Concepts:

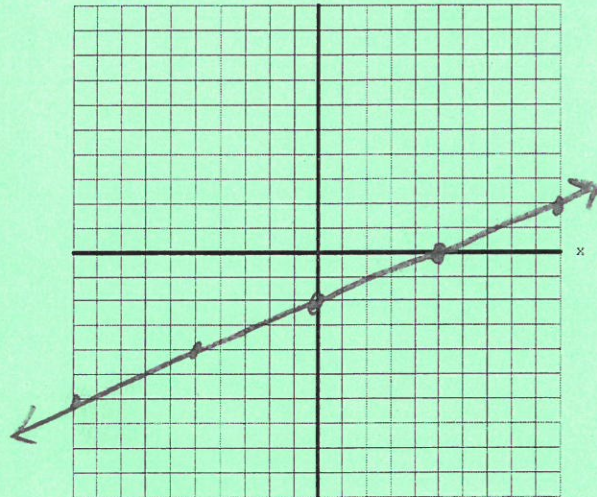
Standard Form: $Ax + By = C$ x-intercept: $(\frac{C}{A}, 0)$ y-intercept: $(0, \frac{C}{B})$ slope: $-\frac{A}{B}$

Find the x and y intercepts for each equation in standard form and use them to graph the linear function.

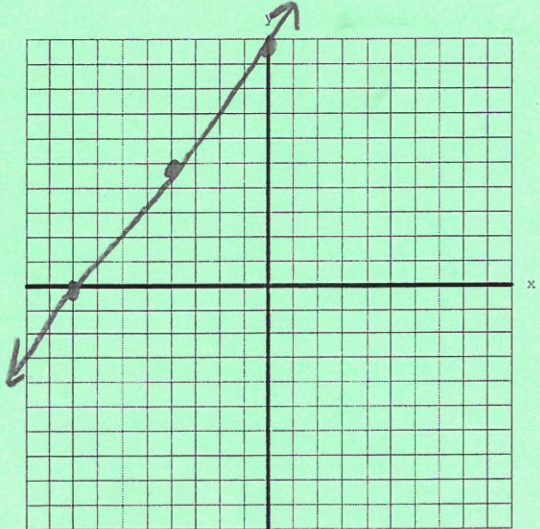
1. $3x + 6y = 12$
 x-int: 4 y-int: 2 $m = \frac{-3}{6} = \boxed{\frac{-1}{2}}$



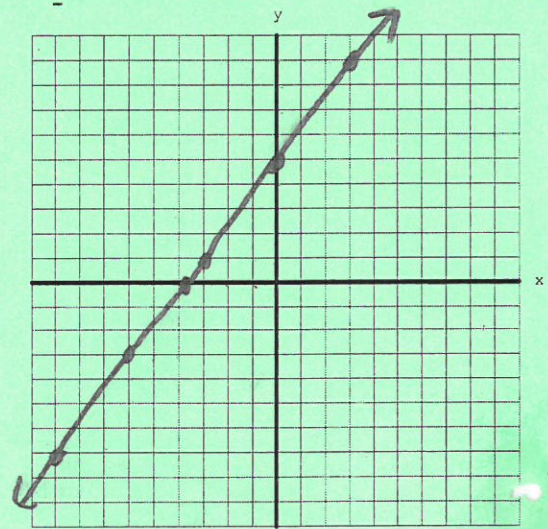
2. $2x - 5y = 10$
 x-int: 5 y-int: -2 $m = \frac{-2}{-5} = \boxed{\frac{2}{5}}$



3. $-5x + 4y = 40$
 x-int: -8 y-int: 10 $m = \frac{-5}{4} = \boxed{\frac{5}{4}}$



4. $8x - 6y = -30$
 x-int: -3.75 y-int: 5 $m = \frac{-8}{-6} = \boxed{\frac{4}{3}}$



5. Mrs. Pischke has \$400 to spend on chairs for her pool deck. Traditional chairs cost \$50 each and lounge chairs she can lay out on cost \$100 each. Write an inequality in standard form expressing this scenario.

$400 \geq 50x + 100y$

6. How many lounge chairs can Mrs. Pischke buy if she purchases 5 traditional chairs?

$400 \geq 50(5) + 100y$ $400 \geq 250 + 100y$ $150 \geq 100y$ $y \leq 1.5$

She can buy 1

7. Find the x and y intercepts for problem 5. What do the x and y intercepts mean in context?

x-int (8, 0) could buy all traditional chairs ... 8
 y-int (0, 4) could buy all lounge chairs ... 4