Algebra 1 3.2 x-axis

Solve linear equations by graphing

Estimate solutions to a linear equation by graphing

Equations with no solution :O

linear function
parent function
family of graphs
solution (root) of an equation
zero of a function
activ: whiteboards

Quiz Mon. 3.1-3.2

3. $4x - 2 = 0$

$+2 \quad +2$

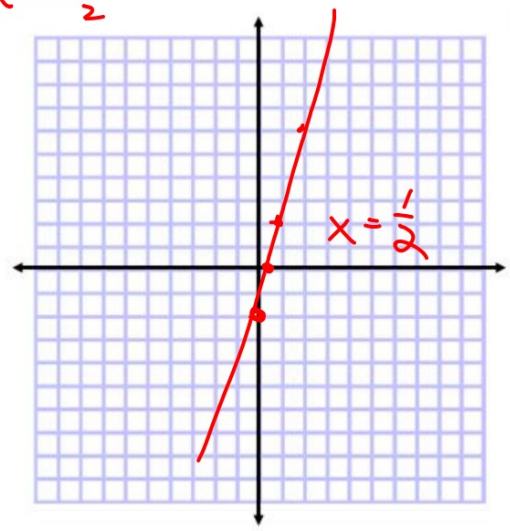
$\frac{4x}{4} = \frac{2}{4}$

$x = \frac{1}{2}$

$\frac{-4}{-1} = 4$

$y = \frac{4}{1}x - 2$

$y = mx + B$



4. $9x + 3 = 0$

$-3 \quad -3$

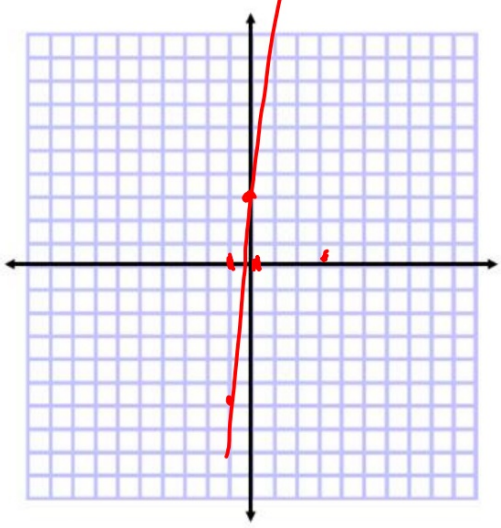
$\frac{9x}{9} = \frac{-3}{9}$

$x = -\frac{1}{3}$

$y = \frac{9}{-1}x + 3$

$-\frac{9}{-1}$

$x = -\frac{1}{4}$



5. $2x - 5 = 2x + 8$

$-2x \quad -2x$

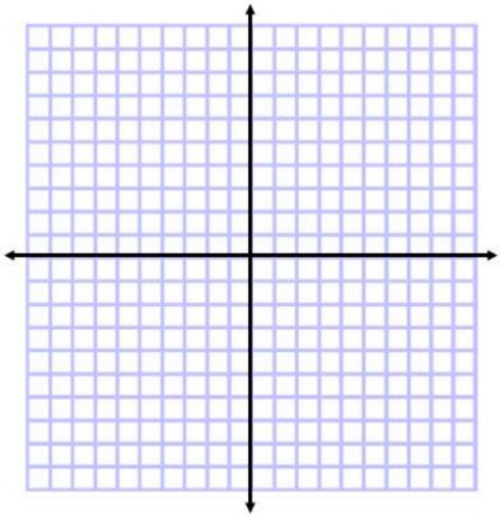
$-5 = 8$ No Sol

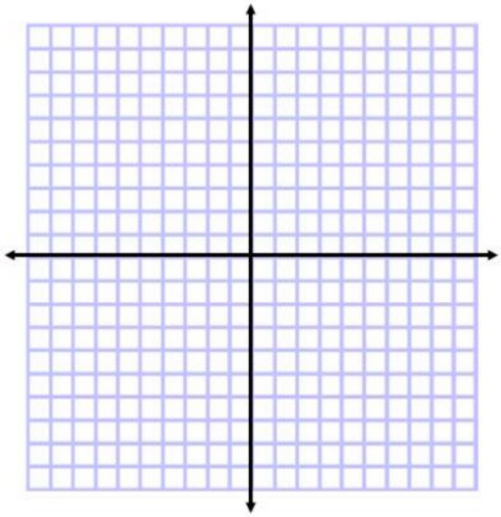
6. $4x + 11 = 4x - 24$

$-4x \quad -4x$

$11 = -24$

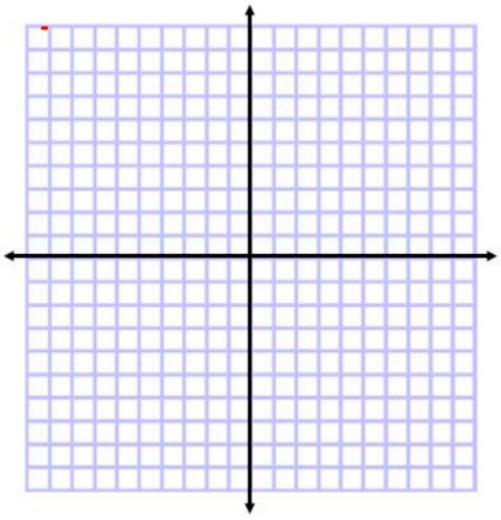
No Sol





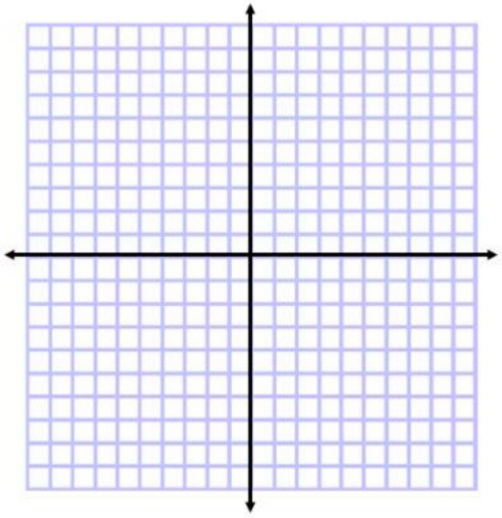
7. $3x - 5 = 3x - 10$

$-5 = -10$



8. $-6x + 3 = -6x + 5$

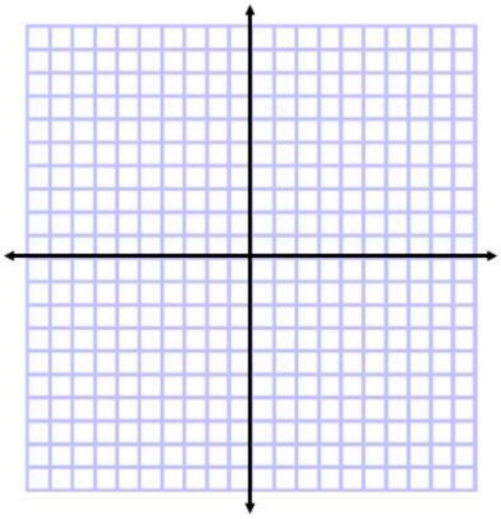
$3 = 5$

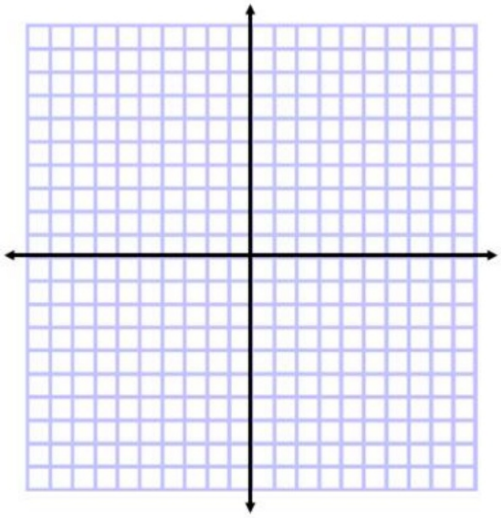


GuidedPractice

2A. $4x + 3 = 4x - 5$

2B. $2 - 3x = 6 - 3x$





9. NEWSPAPERS The function $w = 30 - \frac{3}{4}n$ represents the weight w in pounds of the papers in Tyrone's newspaper delivery bag after he delivers n newspapers. Find the zero and explain what it means in the context of this situation.

weight $= 30 - \frac{3}{4}n$

$0 = 30 - \frac{3}{4}n$

$+\frac{3}{4}n \qquad +\frac{3}{4}n$

$\frac{3}{4}n = 30$

$\frac{\frac{3}{4}n}{\frac{3}{4}} = \frac{30}{\frac{3}{4}}$

$n = 40$

Real-World Example 3 Estimate by Graphing

CARNIVAL RIDES Emily is going to a local carnival. The function $m = 20 - 0.75r$ represents the amount of money m she has left after r rides. Find the zero of this function. Describe what this value means in this context.

$r = 26\frac{2}{3}$

26 rides

money = 20 − .75r

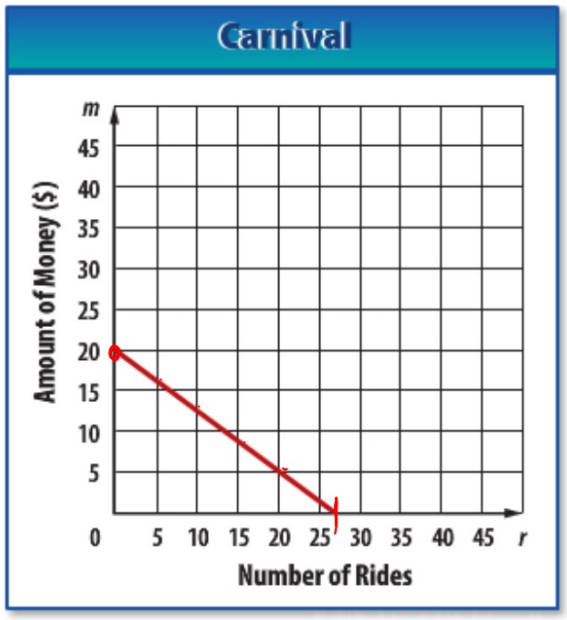
19.50

0 = 20 − .75r

+.75r +.75r

$\frac{.75r}{.75} = \frac{20}{.75}$

26.666...



GuidedPractice

3. FINANCIAL LITERACY Antoine's class is selling candy to raise money for a class trip. They paid \$45 for the candy, and they are selling each candy bar for \$1.50. The function $y = 1.50x - 45$ represents their profit y when they sell x candy bars. Find the zero and describe what it means in the context of this situation.

$y = 1.50x - 45$

$0 = 1.50x - 45$

$+45 \qquad +45$

$45 = 1.50x$

$30 = x$