

## Graphing Linear Equations

A simple way to graph linear equations is to find any two points that satisfy the equation and then draw a straight line through them.

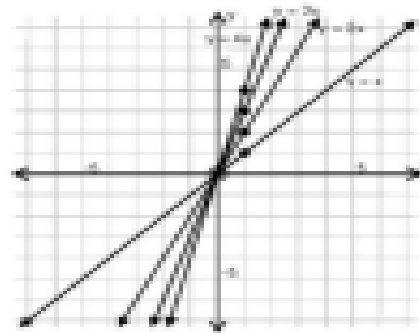
Consider these sets of similar linear equations:

**Example 1:**  $y = x$ ,  $y = 2x$ ,  $y = 3x$ ,  $y = 4x$

**Solution:**

$y = x$	$y = 2x$
$x$	$x$
$0$	$0$
$1$	$2$

$y = 3x$	$y = 4x$
$x$	$x$
$0$	$0$
$1$	$4$

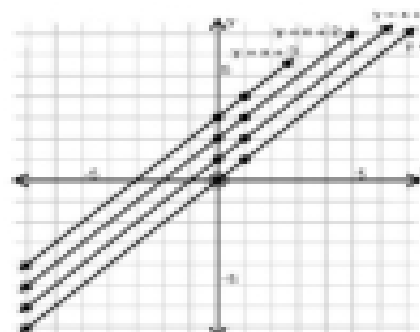


**Example 2:**  $y = x$ ,  $y = x + 1$ ,  $y = x + 2$ ,  $y = x + 3$

**Solution:**

$y = x$	$y = x + 1$
$x$	$x$
$0$	$1$
$1$	$2$

$y = x + 2$	$y = x + 3$
$x$	$x$
$0$	$2$
$1$	$3$



Note that these lines are all parallel.