Get Ready for Algebra!

(No calculator use on any problem)

$\frac{12}{6} =$	$4(3) =$	$10 \div 5 =$
$3(7) =$	$21 \div 3 =$	$\frac{24}{6} =$
$9 \div 3 =$	$\frac{36}{9} =$	$5(3) =$
$\frac{15}{5} =$	$9(6) =$	$8 \div 1 =$
$7(7) =$	$12 \div 6 =$	$\frac{16}{4} =$
$28 \div 4 =$	$\frac{42}{6} =$	$8(4) =$
$\frac{81}{9} =$	$12(2) =$	$0 \div 10 =$
$2(7) =$	$18 \div 3 =$	$\frac{48}{8} =$
$36 \div 3 =$	$\frac{40}{5} =$	$6(5) =$
$\frac{27}{9} =$	$3(8) =$	$20 \div 2 =$

Simplify:

$-2-5$	$-3(-4)$	$-\frac{15}{0}$
$5(-6)$	$5-8$	$\frac{32}{-8}$
$\frac{-10}{-10}$	$-6(-3)$	$10-14$
$-3+7$	$\frac{50}{-5}$	$8(-9)$
$-4(7)$	$-4+1$	$\frac{-12}{6}$
$\frac{-16}{-2}$	$-5(-5)$	$7-10$
$-1-9$	$\frac{27}{-3}$	$1(-6)$
$-6(7)$	$6-9$	$\frac{-22}{11}$
$\frac{0}{-4}$	$-9(-7)$	$4-11$
$-5+3$	$\frac{28}{-4}$	$8(-8)$

Round to the nearest whole number.		
14.678	3.042	2.195

Round to the nearest tenth.		
14.678	3.042	2.195

Round to the nearest hundredth.		
14.678	3.042	2.195

Simplify:		
$\frac{3}{12}$	$\frac{5}{25}$	$\frac{9}{24}$
$\frac{16}{12}$	$\frac{4}{1}$	$\frac{20}{35}$
$\frac{0}{4}$	$\frac{10}{2}$	$\frac{12}{42}$

Solve:

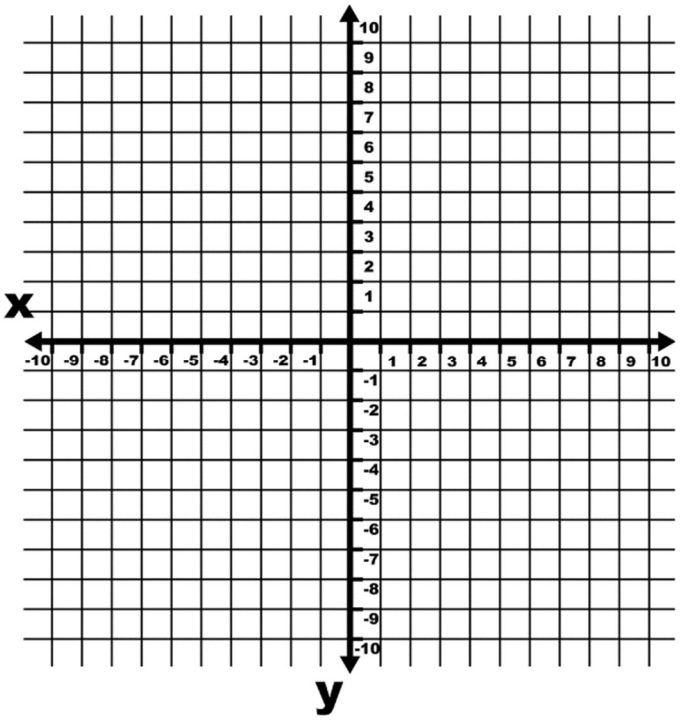
Show all your steps.

$\frac{n}{3} + 5 = 10$	$6 + 2n = 8$
$\frac{n}{4} + 5 = 7$	$n - 2 = -5$
$3 - \frac{n}{3} = 2$	$-4n - 1 = 7$
$\frac{1}{2}n + 2 = 6$	$2n + 5 = 11$

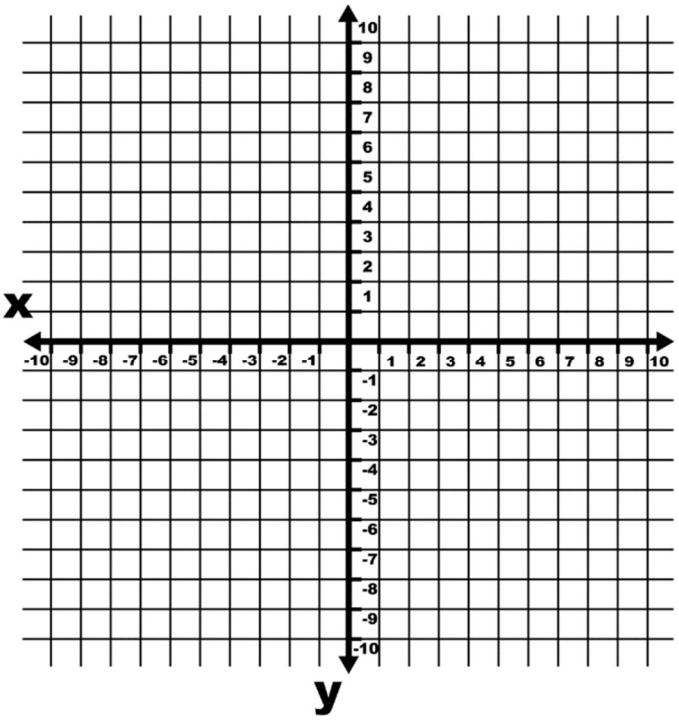
$4 - 3n = 10$	$\frac{n-5}{3} = 10$
$3n = n + 8$	$3(n + 2) = 12$
$8x + 6 = 4x - 10$	$\frac{3}{4}(12 + 4n) = 21$
$3n - 2 = n + 4$	$n - 3 = -7 + 5n$

Graph:

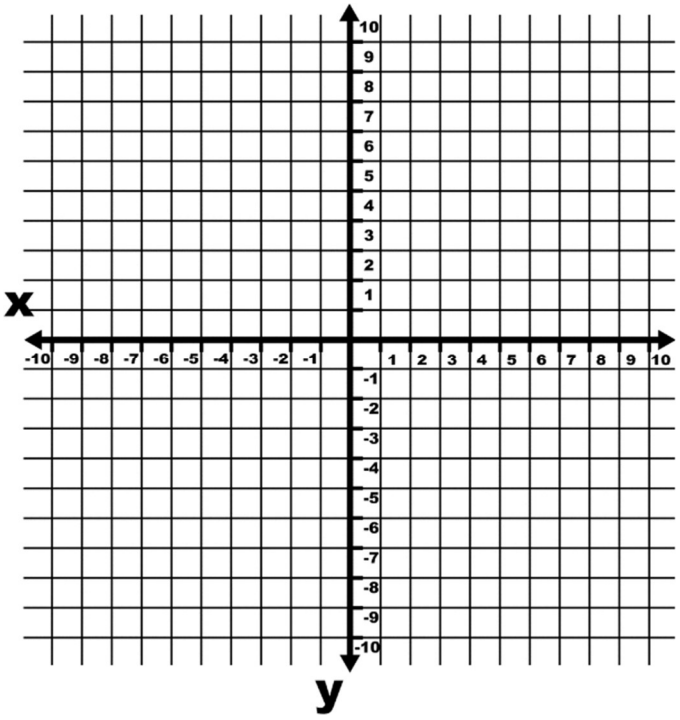
$y = 2x$



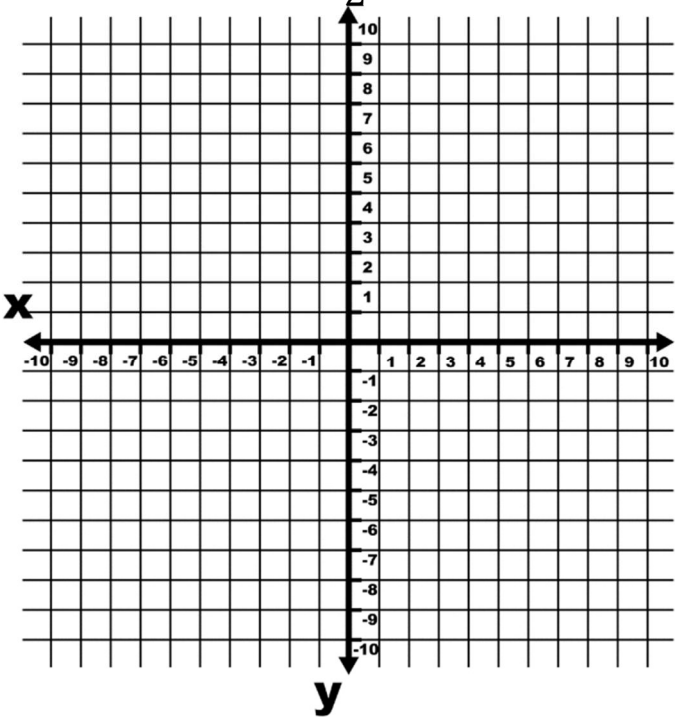
$y = -x + 2$



$y = 4x - 2$



$y = -\frac{1}{2}x + 3$



Complete the tables.

$y = 3x - 4$

x	Y
0	
1	
5	

$y = 5 - 2x$

x	Y
-1	
2	
5	

$y = -x + 4$

x	Y
-1	
2	
8	

$y = 2x + 5$

x	Y
-6	
-1	
1	

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

x	Y
-6	
2	
4	

$x - y = 8$

x	Y
-1	
0	
4	

Simplify:		
$9(2-3x)$	$-4(2x-3)$	$9(8-4x)$
$-(-x+5)$	$-4(x+5)$	$4(2-3x)$
$x+6-6x+10$	$-7r-2r$	$7+6r+r-5$
$1+9x+x$	$1-4p+1-7p$	$1-8x-6$

Write in simplified exponent form.		
$x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$	$x \cdot x \cdot y \cdot y \cdot y$	$4 \cdot x \cdot y \cdot x \cdot 5 \cdot y \cdot z$
$(3x)(4x)(xy)$	$-2xy \cdot x^3 \cdot y^2$	$(-2xy)(-2xy)(-2xy)$

Solve:	
Mitch needs \$250 for a new video game system. He has already saved \$85. He earns \$15 per day walking dogs in his neighborhood. Write an equation to model this relationship. How many days must Mitch walk dogs to have enough money to buy the system.	There are 39 independent cities in Virginia. This is 20 more than one-fifth the number of counties in the state. Write an equation to model this relationship. How many counties are there in the state?