

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

**FINDING X AND Y INTERCEPTS Worksheet (Day 1)**Find both X and Y intercepts of the equation. Show all work!!

1.  $4x + y = 5$

x-int:  $(\frac{5}{4}, 0)$

y-int:  $(0, 5)$

$4x + 0 = 5$      $4(0) + y = 5$

$\frac{4x}{4} = \frac{5}{4}$

$x = \frac{5}{4}$

$y = 5$

2.  $x - y = 1$

x-int:  $(1, 0)$

y-int:  $(0, -1)$

$x - 0 = 1$      $0 - y = 1$

$x = 1$

$-y = 1$

$y = -1$

$y = -1$

$y = -1$

3.  $x + 4y = 8$

x-int:  $(8, 0)$

y-int:  $(0, 2)$

$x + 4(0) = 8$      $0 + 4y = 8$

$x = 8$

$4y = 8$

$\frac{4y}{4} = \frac{8}{4}$

$y = 2$

4.  $5x + y = 2$

x-int:  $(\frac{2}{5}, 0)$

y-int:  $(0, 2)$

$5x + 0 = 2$      $5(0) + y = 2$

$\frac{5x}{5} = \frac{2}{5}$

$x = \frac{2}{5}$

$y = 2$

5.  $7x + 3y = -21$

x-int:  $(-3, 0)$

y-int:  $(0, -7)$

$7x + 3(0) = -21$      $7(0) + 3y = -21$

$\frac{7x}{7} = \frac{-21}{7}$

$x = -3$

$\frac{3y}{3} = \frac{-21}{3}$

$y = -7$

6.  $3x + 6y = 18$

x-int:  $(6, 0)$

y-int:  $(0, 3)$

$3x + 6(0) = 18$      $3(0) + 6y = 18$

$\frac{3x}{3} = \frac{18}{3}$

$x = 6$

$\frac{6y}{6} = \frac{18}{6}$

$y = 3$

7.  $4x + y = -8$

x-int:  $(-2, 0)$

y-int:  $(0, -8)$

$4x + 0 = -8$      $4(0) + y = -8$

$\frac{4x}{4} = \frac{-8}{4}$

$x = -2$

$y = -8$

8.  $x - 2y = -10$

x-int:  $(-10, 0)$

y-int:  $(0, 5)$

$x - 2(0) = -10$      $0 - 2y = -10$

$x = -10$

$-2y = -10$

$\frac{-2y}{-2} = \frac{-10}{-2}$

$y = 5$

9.  $6x + 4y = 12$

x-int:  $(2, 0)$

y-int:  $(0, 3)$

$6x + 4(0) = 12$      $6(0) + 4y = 12$

$\frac{6x}{6} = \frac{12}{6}$

$x = 2$

$\frac{4y}{4} = \frac{12}{4}$

$y = 3$

10.  $x - 9y = -45$

x-int:  $(-45, 0)$

y-int:  $(0, 5)$

$x - 9(0) = -45$      $0 - 9y = -45$

$x = -45$

$-9y = -45$

$\frac{-9y}{-9} = \frac{-45}{-9}$

$y = 5$

11.  $2x - 6y = 18$

x-int:  $(9, 0)$

y-int:  $(0, -3)$

$2x - 6(0) = 18$      $2(0) - 6y = 18$

$\frac{2x}{2} = \frac{18}{2}$

$x = 9$

$\frac{-6y}{-6} = \frac{18}{-6}$

$y = -3$

12.  $7x + 5y = 42$

x-int:  $(6, 0)$

y-int:  $(0, \frac{42}{5})$

$7x + 5(0) = 42$      $7(0) + 5y = 42$

$\frac{7x}{7} = \frac{42}{7}$

$x = 6$

$\frac{5y}{5} = \frac{42}{5}$

$y = \frac{42}{5}$