Math 10D   Name_____

Units 1 and 2 Review   Date_____

Solve each system by graphing.
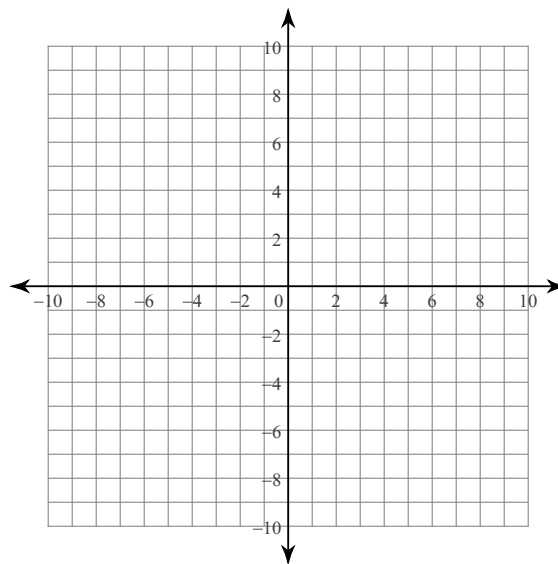
1) $y = x - 1$

$y = -\dfrac{1}{4}x - 6$
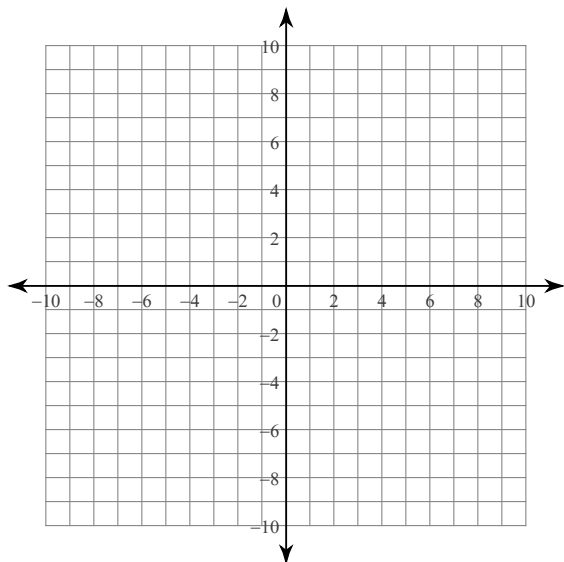
2) $0 = 8 - 2x - 2y$

$-2 + 5x = y$

Solve each system by substitution.

3) $-4x + 5y = -8$

$y = -6x + 12$

4) $-4x - 2y = 14$

$3x + 3y = -6$

Solve each system by elimination.

5) $-x - 6y = 13$

$x + 8y = -17$

6) $7x + 2y = 21$

$2x - 3y = -19$

7) Mixed nuts which cost $10/kg are made by combining walnuts which cost $11/kg with peanuts which cost $6/kg. Find the number of kg of walnuts and peanuts required to make 10 kg of mixed nuts.

Find the midpoint of the line segment with the given endpoints.

8) $(-8, 5),\ (2, -2)$

Find the distance between each pair of points.

9) $(-7, 4),\ (-7, -8)$

Find the slope of the line through each pair of points.

10) $(2, -2), (1, -14)$

Find the slope of a line perpendicular to each given line.

11) $y = -\dfrac{3}{5}x - 2$

Write the slope-intercept form of the equation of the line through the given points.

12) through: $(-4, 4)$ and $(-5, -1)$

Write the slope-intercept form of the equation of the line described.

13) through: $(2, 3)$, perp. to $y = -\dfrac{2}{5}x - 5$

14) Given the equation $x^2 + y^2 = 60$ Is the point (-4,7) inside, on, or outside the circle?

15) The point (8,12) lies on a circle centred around the origin. What is the equation to the circle?

16) Given triangle ABC with A(-1,4), B(-1,-2), C(5,1),show that the midsegment from AC to BC is parallel to the line segment AB

17) Given triangle XYZ with X (-1, 6), Y(-4, 0) and Z(3, 2), draw median from vertex X. Calculate the slope of the median.