Algebra 2
Practice 2.3-5 Linear Equations

Name _____

Date _____

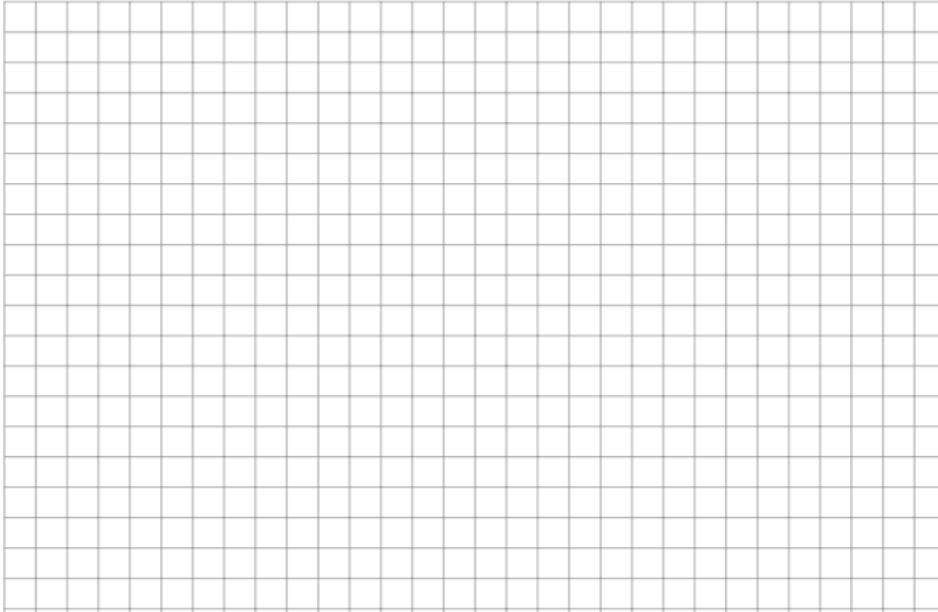|	
1. Write the equation of the line in point-slope form that passes through the given points. $$(2,7),(1,4)$$	**2.** Graph the equation using the intercepts $4x+3y=-12$. Show your work.
3. Write the equation of the line in standard form that is parallel to $y=\dfrac{2}{3}x+4$ that passes through $(-4,7)$.	**4.** A road on a map can be described by the equation $y=2x+4$. Another road will be built perpendicular to this road and passing through $(-3,12)$. What is the equation of the perpendicular line in slope-intercept form? Graph both lines and the point on the back side.

5. The table shows the number of misdirected bags and the number of late flight arrivals by week, for one airline.

Incidents per Week for January				
Number of Misdirected Bags	37	42	25	9
Number of Late Arrivals	12	8	28	36

6. The table shows the value of rice produced in Texas from 2001 to 2007.

Value of Rice Produced in Taxes							
Year	2001	2002	2003	2004	2005	2006	2007
Price per lb	$.461	$.416	$.735	$.735	$.777	$1.00	$1.13

SOURCE: http://www.nass.usda.gov/Statistics_by_State/Texas/index.asp#.html

  a. Use a calculator to find the line of best fit. Let x = the number of years since 2000.
  b. Using your linear model, predict the value of rice in Texas in 2015.
  c. Using your linear model, predict when the price is likely to reach $2.60 per pound.