Math 3H Name:\_\_\_­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Per:\_\_\_

8.3 Solving Systems of Equations.

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| **Use the tables to find when** $f(x)≈g(x)$**.** |  |
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| **Use technology to find when  .** |
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| 1. An open box is made from a rectangular piece of cardboard measuring 12 inches by 16 inches by cutting identical squares from the corners and turning up the sides. What are the lengths of the sides of the removed squares if the area of the box is 60 square inches?
 | 1. A triangular table top has a base that is twice as long as its height. If the area of the table surface is 324 square inches, what is the value of the height and the base?
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| 1. The width of a box is two inches less than twice the height. The length is 4 inches less than three times the height. The volume is 2240 cubic inches. What are the dimensions of the box?
 | 1. Sam can paddle a canoe in still water at a speed of 55 meters per minute. If he paddles upstream 135 meters in 3 minutes, what is the speed of the current?
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| 1. Two adjacent rectangular corrals are to be made using 240 feet of fencing. The fence must extend around the outer perimeter and across the middle as shown in the diagram. Find the dimensions so that the total enclosed area is as large as possible.
 |  |

1. $\frac{r^{3}+12r^{2}+22r-32}{r+4}$ 17. $\frac{m^{3}-4m^{2}-17m+24}{m-6}$

18.A survey of daily travel time had these results (in minutes). The mean is 38.8 minutes and the standard deviation is 11.4.

a. Draw a distribution curve. b. Find how much data lands between 27.4 and 50.2.

c. What is the interval 3 standard deviations away from the mean?