Together you and I have scored 154 points. You have scored 5 less than twice the number of points that I have scored. Write a system of equations and solve to find the number of points each of us have scored.

$$y = your PTS$$

$$I = I PTS$$

$$y = ZI - S$$

$$I = I PTS$$

$$I = JOl PTS$$

$$I =$$

Solve this system of equations using any method.

$$5.2x + 3.8y = 10.2$$
 $y - /nT = \frac{70.2}{3.8} = 2.68$
 $7.8x + 5.7y = 15.3 \longrightarrow y - /nT = \frac{75.3}{5.7} = 2.68$

When you try to solve this system of matrices you get an error message which means that this system can't be solved with matrices. This system must then either have NO SOLUTION or MANY SOLUTIONS.

The only difference between these two situations is whether the lines have the same y-intercept or different y-intercepts. Therefore, you only need to find the two y-intercepts.

many sou

Same

Same m

because the y-intercepts are the same they must be the same line and there are $\ensuremath{\mathsf{MANY}}$ SOLUTIONS

Without actually solving determine if each system of equations has 1, None, or Many solutions.

$$y = 6x - 9$$

$$30x + 5y = 15$$

$$y = 7x + 20$$

$$y = 7$$
Different slopes
$$y = -3 \times 2$$

$$y = -4x + 18$$

$$12x + 3y = 54$$

$$y = -4x + 18$$
These are the same line
$$y = 54 - 12x = 13 - 4x$$

Solve this system of equations.

$$9x + 7y - z = 43$$

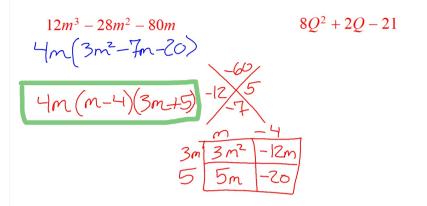
$$y + 4z = 13$$

$$8x - 2y - 3 = -40$$

$$8x = 2y - 40 + 3z$$

$$-2.33, 7.27, 0.93$$

factor each completely.



factor each completely.

$$x^{2} - 16 9B^{2} - 25 3c^{3} - 12c$$

$$= (x + 4)(x - 4) = (3x + 5)(3x - 5) = 3c(c^{2} - 4)$$

$$= 3c(c + 2)(c - 2)$$

$$x \pm 4 3x \pm 5 3c(c^{\pm}2)$$