

1-8-14
4th Trig

$$\textcircled{1} \begin{cases} 2x + 3y = 22 \\ 3x - y = 0 \end{cases}$$

$$\begin{bmatrix} 2 & 3 \\ 3 & -1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 22 \\ 0 \end{bmatrix}$$

$$A^{-1} \cdot A \cdot \begin{bmatrix} x \\ y \end{bmatrix} = A^{-1} \cdot B$$

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 2 \\ 6 \end{bmatrix}$$

$$x = 2$$

$$y = 6$$

SAT Questions on 5-6

- 9) One bag of grass seed covers 5,000 ft². If each bag costs \$25, how much will a 200 by 200 ft. area cost to cover?

ft² we have 

$$\frac{40,000 \text{ ft}^2}{5,000 \text{ ft}^2}$$

8 bags

$$\frac{8 \times \$25}{\$200}$$

- 10) $3x + y = 7$ $x + 3y = -1$
Find $3x + 3y$ value.

$$\begin{array}{r} 3x + y = 7 \\ x + 3y = -1 \\ \hline 4x + 4y = 16 \end{array}$$

$$\frac{4(x+y) = 16}{4} \\ x+y = 4$$

$$\begin{array}{r} 3(x+y) \\ 3 \cdot 4 \\ 12 \end{array}$$

$$\frac{17}{12}$$

$$\begin{array}{r} 17(10+2) \\ 170 + 34 \\ 204 \end{array}$$

1-8-14

3rd Trig

$$\begin{cases} 2x + 3y = 23 \\ x - 2y = 16 \end{cases}$$

$$\begin{bmatrix} 2 & 3 \\ 1 & -2 \end{bmatrix} \cdot \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 23 \\ 16 \end{bmatrix}$$

$$A^{-1} \cdot A \begin{bmatrix} x \\ y \end{bmatrix} = A^{-1} \cdot B$$

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} \\ \end{bmatrix}$$