

(2).1) If  $\begin{vmatrix} 3x & 2 \\ 4 & 2x \end{vmatrix} = \begin{vmatrix} 7 & 8 \\ 5 & 8 \end{vmatrix}$ , then find  $x$

solution:  $\begin{vmatrix} 3x & 2 \\ 4 & 2x \end{vmatrix} = \begin{vmatrix} 7 & 8 \\ 5 & 8 \end{vmatrix}$

$$\Rightarrow 6x^2 - 8 = 56 - 40$$

$$\Rightarrow 6x^2 = 16 + 8 = 24$$

$$\Rightarrow x^2 = 4 \Rightarrow x = \pm 2$$