NAME.....CLASS.....No.....

MATRIX MULTIPLICATION

Answer ALL questions in the spaces provided for your answers.

1. Given that $A = \begin{pmatrix} 3 & 2 \\ -1 & 4 \end{pmatrix}$, $B = \begin{pmatrix} -4 & 1 \\ 3 & 0 \end{pmatrix}$ and $C = \begin{pmatrix} -2 & 3 \\ 6 & 7 \end{pmatrix}$, evaluate

   (a) $AB = \begin{pmatrix} & \\ & \end{pmatrix}$

   (b) $ABC = \begin{pmatrix} & \\ & \end{pmatrix}$

   (c) $C^2 = \begin{pmatrix} & \\ & \end{pmatrix}$

2. Given that $A = \begin{pmatrix} 3 & 4 \\ -2 & 1 \end{pmatrix}$, $B = \begin{pmatrix} -5 & 0 \\ 3 & 2 \end{pmatrix}$ and $C = \begin{pmatrix} -2 & 3 \\ 6 & 7 \end{pmatrix}$, evaluate

   (a) $AB = \begin{pmatrix} & \\ & \end{pmatrix}$

   (b) $BC = \begin{pmatrix} & \\ & \end{pmatrix}$

   (c) $CA = \begin{pmatrix} & \\ & \end{pmatrix}$

   (d) $A^2 = \begin{pmatrix} & \\ & \end{pmatrix}$

   (e) $B^2 = \begin{pmatrix} & \\ & \end{pmatrix}$

   (f) $C^2 = \begin{pmatrix} & \\ & \end{pmatrix}$

3. Given that $P = \begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix}$ and $Q = (6 \quad 8 \quad 9)$, determine PQ. (Use a – in any space where you believe there should not be a number.)

$$PQ = \begin{pmatrix} & & \\ & & \\ & & \end{pmatrix}$$

LIVEWORKSHEETS