Name _____   Date _____

Advanced Vector and Matrix Products- Matching Worksheet

Write the letter of the answer that matches the problem.

_____   1. Multiply.

$$-7x \begin{bmatrix} 4x & -y \\ -5y & -3x \end{bmatrix}$$

a.   18x
      6y
      $48x^2$

_____   2. Write "undefined" for expressions that are undefined.

$$6 \begin{bmatrix} 3x \\ y \\ 8x^2 \end{bmatrix}$$

b.   -32   12
      $-10w^2$ $30w^2$

_____   3. Write "undefined" for expressions that are undefined.

$$8n \begin{bmatrix} -7m & -5n & 4m \end{bmatrix}$$

      24   21
c.   10   48
      20   36

_____   4. Write "undefined" for expressions that are undefined.

$$\begin{bmatrix} -4 & 2 \\ -5w & 6w \end{bmatrix} \times \begin{bmatrix} 8 & 6 \\ 2w & 5w \end{bmatrix}$$

d.   24mn $-12m^2$ 28m

_____   5. Write "undefined" for expressions that are undefined.

$$\begin{bmatrix} 8 & 3 \\ 2 & 6 \\ 5 & 4 \end{bmatrix} \times \begin{bmatrix} 3 & 7 \\ 5 & 8 \\ 4 & 9 \end{bmatrix}$$

e. $-36x^2$ -45xy $54x^2$

_____   6. Write "undefined" for expressions that are undefined.
$$9x \begin{bmatrix} -4x & -5y & 6x \end{bmatrix}$$

f. $-28x^2$ 7xy
       35xy $21x^2$

_____   7. Write "undefined" for expressions that are undefined.
$$4m \begin{bmatrix} 6n & -3m & 7 \end{bmatrix}$$

g.   -56nm $-40n^2$ 48nm