Morgan Jan. 16

Maths Supervision

3. $v \cdot u = 0 \cdot 1 + 1 \cdot 2 + 2 \cdot 6$

$= 2 + 26$

$$uv = \begin{pmatrix} 0 & 0 & 0 \\ 1 & 2 & 6 \\ 2 & 4 & 26 \end{pmatrix}$$

4. A^2, ~~BA~~, ~~AC~~, B^2, ~~CB~~, and C^2 do not exist

~~AC~~ / CA $= \begin{pmatrix} 9 & 12 & 15 \\ 3 & 6 & 9 \\ 4 & 5 & 6 \\ 9 & 12 & 15 \end{pmatrix}$ $\quad AB = \begin{pmatrix} 4 & 4 & 7 & 6 \\ 10 & 10 & 16 & 15 \end{pmatrix}$

~~BC~~ / ~~CB~~ $= \begin{pmatrix} 1 & 3 \\ 9 & 6 \\ 1 & 4 \end{pmatrix}$

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