

## 10.4 (part 2) SHOW WORK!

#17-22, 33,34,36, 43-46, 54-56

→CHECK ODD ANSWERS IN BOOK

### CHECK EVEN ANSWERS BELOW:

no solution, dimension mismatch

not possible, dimension mismatch

-3    1    2    5

$$\begin{bmatrix} \$4690 & \$1690 & \$13,210 \end{bmatrix} \quad \begin{bmatrix} 28 & 21 & 28 \end{bmatrix}$$

$$\begin{bmatrix} 28 & 21 & 28 \end{bmatrix} \quad \begin{bmatrix} 38 & -11 & 35 \end{bmatrix}$$

$$\begin{bmatrix} 4 & 7 \\ 7 & 4 \\ 2 & 2 \end{bmatrix} \quad \begin{bmatrix} 96 \\ 103 \\ 95 \end{bmatrix} \quad \begin{bmatrix} -2 & -\frac{7}{3} \\ \frac{1}{3} & \frac{1}{3} \end{bmatrix}$$

95 students slept more than 7 hours

96 students slept less than 4 hours

103 students slept 4 to 7 hours

\$1690 total food sales in Long Beach

\$4690 total food sales in Santa Monica

\$13,210 total food sales in Anaheim

### HINTS:

$A \cdot B \neq B \cdot A$  when multiplying matrices

#17-22 → solve for X first, then substitute each matrix and simplify

#33 →  $A^2 = A \cdot A$  so set up like this:  $\begin{bmatrix} \end{bmatrix} \cdot \begin{bmatrix} \end{bmatrix}$

#36a →  $DB + DC$  is equivalent to  $D(B + C)$   
(this form is easier to solve ↑)

#36b →  $BF + FE = F(B + E)$

#43-46 set like parts equal to each other,  
then solve the resulting equations