

Bellwork 4th hr Alg 2A Monday, January 9, 2017

Use these matrices for the bellwork.

$$A \begin{bmatrix} 6 & 1 \\ -3 & 4 \end{bmatrix} \quad B \begin{bmatrix} -9 & 10 \\ 2 & 0 \\ 7 & 5 \end{bmatrix} \quad C \begin{bmatrix} -4 & 1 \\ 8 & 12 \\ -14 & 9 \end{bmatrix} \quad D \begin{bmatrix} 7 & -7 \\ -6 & 1 \end{bmatrix} \quad E \begin{bmatrix} 15 & -1 \\ 0 & 20 \end{bmatrix}$$

Find each resulting matrix.

1. $A - 2D$

2. $3B + 2C$

3. $A - (D + E)$

4. Solve each equation for Matrix X

a) $3C - X = B$

b) $-2X + 2D = E$

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Alg 2A 4th Hour Bellwork Answers

$$(1) A - 2D = \begin{bmatrix} -8 & 15 \\ 9 & 2 \end{bmatrix}$$

$$(2) 3B + 2C = \begin{bmatrix} -35 & 32 \\ 22 & 24 \\ -7 & 33 \end{bmatrix}$$

$$(3) A - (D + E) = \begin{bmatrix} -16 & 9 \\ 3 & -17 \end{bmatrix}$$

(4) a) $3C - \underset{+X}{X} = \underset{+X}{B}$
 $3C = B + X$
 $\underset{-B}{-B} \quad \underset{-B}{-B}$
 $\boxed{3C - B = X} \rightarrow X = \begin{bmatrix} -3 & -7 \\ 22 & 36 \\ -49 & 22 \end{bmatrix}$

b) $\underset{-2D}{-2X} + \underset{-2D}{2D} = \underset{-2D}{E}$
 $-\frac{1}{2}(-2X = E - 2D)^{-\frac{1}{2}}$
 $X = -\frac{1}{2}(E - 2D)$

$$= \begin{bmatrix} -1.5 & -6.5 \\ -6 & -9 \end{bmatrix}$$