

## MORE PRACTICE - Determinants

Find the value of the determinant:

1.  $\begin{vmatrix} 4 & 2 \\ 3 & -1 \end{vmatrix}$

2.  $\begin{vmatrix} -1 & 7 \\ 1 & 3 \end{vmatrix}$

3.  $\begin{vmatrix} -6 & 2 \\ -3 & 1 \end{vmatrix}$

4.  $\begin{vmatrix} 2 & 0 & 1 \\ 1 & 3 & 3 \\ -2 & -5 & 1 \end{vmatrix}$

5.  $\begin{vmatrix} 3 & 2 & -1 \\ 1 & 4 & 3 \\ 0 & 5 & -2 \end{vmatrix}$

6.  $\begin{vmatrix} 1 & 5 & -3 \\ 2 & 2 & 1 \\ 1 & -3 & 4 \end{vmatrix}$

7. Find  $x$  if  $\begin{vmatrix} x & 2 \\ -3 & 2 \end{vmatrix} = 0$

8. Find  $x$  if  $\begin{vmatrix} 4x & 2 \\ -x & 5 \end{vmatrix} = 11$

9. Find  $x$  if  $\begin{vmatrix} -2 & 2x \\ x & 1 \end{vmatrix} = 6$