

Given

$$\det \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix} = -3,$$

find the following determinants.

$$\det \begin{bmatrix} g & h & i \\ a & b & c \\ d & e & f \end{bmatrix} = \boxed{}$$

$$\det \begin{bmatrix} a & b & c \\ -8d + a & -8e + b & -8f + c \\ g & h & i \end{bmatrix} = \boxed{}$$

$$\det \begin{bmatrix} -8d + a & -8e + b & -8f + c \\ d & e & f \\ g & h & i \end{bmatrix} = \boxed{}$$

Given

$$\det \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix} = -3,$$

find the following determinants.

$$\det \begin{bmatrix} g & h & i \\ a & b & c \\ d & e & f \end{bmatrix} = \boxed{-3}$$

$$\det \begin{bmatrix} a & b & c \\ -8d + a & -8e + b & -8f + c \\ g & h & i \end{bmatrix} = \boxed{24}$$

$$\det \begin{bmatrix} -8d + a & -8e + b & -8f + c \\ d & e & f \\ g & h & i \end{bmatrix} = \boxed{-3}$$