Student Name: _____ **Score:**

Determinants – Cramer's Rule

ES1

Solve the following system of equations using Cramer's rule:

$2x+5y=27$
$7x+5y=7$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

$2x+7y=-55$
$5x-6y=74$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

$3x-4y=25$
$3x+7y=14$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

$-5x+9y=20$
$3x+y=20$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

$x-2y=-9$
$5x-7y=-27$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

$2x+7y=-14$
$9x+2y=55$

$\Delta =$ ☐
$\Delta x =$ ☐ $\Delta y =$ ☐
$x =$ ☐ $y =$ ☐

Student Name: _____ Score:

Answer key

Determinants – Cramer's Rule

ES1

$2x+5y=27$
$7x+5y=7$

$\Delta=-25$
$\Delta x=100;\Delta y=-175$
$x=\frac{\Delta x}{\Delta}=-4;\ y=\frac{\Delta y}{\Delta}=7$

$2x+7y=-55$
$5x-6y=74$

$\Delta=-47$
$\Delta x=-188;\Delta y=423$
$x=\frac{\Delta x}{\Delta}=4;\ y=\frac{\Delta y}{\Delta}=-9$

$3x-4y=25$
$3x+7y=14$

$\Delta=33$
$\Delta x=231;\Delta y=-33$
$x=\frac{\Delta x}{\Delta}=7;\ y=\frac{\Delta y}{\Delta}=-1$

$-5x+9y=20$
$3x+y=20$

$\Delta=-32$
$\Delta x=-160;\Delta y=-160$
$x=\frac{\Delta x}{\Delta}=5;\ y=\frac{\Delta y}{\Delta}=5$

$x-2y=-9$
$5x-7y=-27$

$\Delta=3$
$\Delta x=9;\Delta y=18$
$x=\frac{\Delta x}{\Delta}=3;\ y=\frac{\Delta y}{\Delta}=6$

$2x+7y=-14$
$9x+2y=55$

$\Delta=-59$
$\Delta x=-413;\Delta y=236$
$x=\frac{\Delta x}{\Delta}=7;\ y=\frac{\Delta y}{\Delta}=-4$