```
> with(linalg):
> A1:=matrix([[1,-3,2,6],
> [1,4,-1,4],
> [5,6,1,20]]);
```

$$A1 := \begin{bmatrix} 1 & -3 & 2 & 6 \\ 1 & 4 & -1 & 4 \\ 5 & 6 & 1 & 20 \end{bmatrix}$$

```
> A2:=addrow(A1,1,2,-1);
```

$$A2 := \begin{bmatrix} 1 & -3 & 2 & 6 \\ 0 & 7 & -3 & -2 \\ 5 & 6 & 1 & 20 \end{bmatrix}$$

```
> A3:=addrow(A2,1,3,-5);
```

$$A3 := \begin{bmatrix} 1 & -3 & 2 & 6 \\ 0 & 7 & -3 & -2 \\ 0 & 21 & -9 & -10 \end{bmatrix}$$

```
> A4:=mulrow(A3,2,1/7);
```

$$A4 := \begin{bmatrix} 1 & -3 & 2 & 6 \\ 0 & 1 & -3/7 & -2/7 \\ 0 & 21 & -9 & -10 \end{bmatrix}$$

```
> A5:=addrow(A4,2,3,-21);
```

$$A5 := \begin{bmatrix} 1 & -3 & 2 & 6 \\ 0 & 1 & -3/7 & -2/7 \\ 0 & 0 & 0 & -4 \end{bmatrix}$$

```
> swaprow(A5,1,2);
```

$$\begin{bmatrix} 0 & 1 & -3/7 & -2/7 \\ 1 & -3 & 2 & 6 \\ 0 & 0 & 0 & -4 \end{bmatrix}$$