

| matrix | sol | rhs | action | <i>scaling</i> |
|-------------------|-----|-----|--------|----------------|
| 2 2 13 | 1 | 17 | | |
| 4 5 32 | 1 | 41 | | |
| -2 -3 -16 | 1 | -21 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|-------------------|-----|-----|---------------|----------------|
| 2 2 13 | 1 | 17 | take this row | 1/2 |
| 4 5 32 | 1 | 41 | | |
| -2 -3 -16 | 1 | -21 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|-----------------|-----|-----|------------------------|----------------|
| 2 2 13 | 1 | 17 | take this row | 1/2 |
| ↓ ↓ ↓ | | | | |
| 4 5 32 | 1 | 41 | minus $4 \times (1/2)$ | |
| -2 -3 -16 | 1 | -21 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|-----------------|-----|-----|---------------|----------------|
| 2 2 13 | 1 | 17 | take this row | 1/2 |
| 0 1 6 | 1 | 7 | | -2 |
| -2 -3 -16 | 1 | -21 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|-----------|-----|-----|---------------------------|----------------|
| 2 2 13 | 1 | 17 | take this row | 1/2 |
| ↓↓↓ | | | | |
| 0 1 6 | 1 | 7 | | -2 |
| -2 -3 -16 | 1 | -21 | minus $(-2) \times (1/2)$ | |

| matrix | sol | rhs | action | scaling |
|---------------|-----|-----|-------------------|---------|
| 2 2 13 | 1 | 17 | first column done | 1/2 |
| 0 1 6 | 1 | 7 | | -2 |
| 0 -1 -3 | 1 | -4 | | +1 |

| matrix | sol | rhs | action | <i>scaling</i> |
|---------------|-----|-----|---------------|----------------|
| 2 2 13 | 1 | 17 | | |
| 0 1 6 | 1 | 7 | take this row | 1 |
| 0 -1 -3 | 1 | -4 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|---------------|-----|-----|--------------------|----------------|
| 2 2 13 | 1 | 17 | minus 2×1 | |
| ↑ ↑ ↑ | | | | |
| 0 1 6 | 1 | 7 | take this row | 1 |
| 0 -1 -3 | 1 | -4 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|---------|-----|-----|---------------|----------------|
| 2 0 1 | 1 | 3 | | -2 |
| 0 1 6 | 1 | 7 | take this row | 1 |
| 0 -1 -3 | 1 | -4 | | |

| matrix | sol | rhs | action | <i>scaling</i> |
|-----------------|-----|-----|-----------------------|----------------|
| 2 0 1 | 1 | 3 | | -2 |
| 0 1 6 | 1 | 7 | take this row | 1 |
| ↓ ↓ ↓ | | | | |
| 0 - 1 -3 | 1 | -4 | minus $(-1) \times 1$ | |

| matrix | sol | rhs | action | <i>scaling</i> |
|--------|-----|-----|--------------------|----------------|
| 2 0 1 | 1 | 3 | | -2 |
| 0 1 6 | 1 | 7 | second column done | 1 |
| 0 0 3 | 1 | 3 | | +1 |

| matrix | sol | rhs | action | <i>scaling</i> |
|--------|-----|-----|---------------|----------------|
| 2 0 1 | 1 | 3 | | |
| 0 1 6 | 1 | 7 | | |
| 0 0 3 | 1 | 3 | take this row | 1/3 |

| matrix | sol | rhs | action | <i>scaling</i> |
|--------------|-----|-----|----------------------|----------------|
| 2 0 1 | 1 | 3 | minus $1 \times 1/3$ | |
| 0 1 6 | 1 | 7 | | |
| ↑↑ ↑↑ ↑↑ | | | | |
| 0 0 3 | 1 | 3 | take this row | 1/3 |

| matrix | sol | rhs | action | <i>scaling</i> |
|--------|-----|-----|---------------|----------------|
| 2 0 0 | 1 | 2 | | -1/3 |
| 0 1 6 | 1 | 7 | | |
| 0 0 3 | 1 | 3 | take this row | 1/3 |

| matrix | sol | rhs | action | scaling |
|--------------|-----|-----|----------------------|---------|
| 2 0 0 | 1 | 2 | | -1/3 |
| 0 1 6 | 1 | 7 | minus $6 \times 1/3$ | |
| ↑ ↑ ↑ | | | | |
| 0 0 3 | 1 | 3 | take this row | 1/3 |

| matrix | sol | rhs | action | scaling |
|--------|-----|-----|-------------------|---------|
| 2 0 0 | 1 | 2 | | -1/3 |
| 0 1 0 | 1 | 1 | | -2/3 |
| 0 0 3 | 1 | 3 | third column done | 1/3 |

| matrix | sol | rhs | action | <i>scaling</i> |
|--------|-----|-----|--------|----------------|
| 2 0 0 | 1 | 2 | | |
| 0 1 0 | 1 | 1 | | |
| 0 0 3 | 1 | 3 | | |