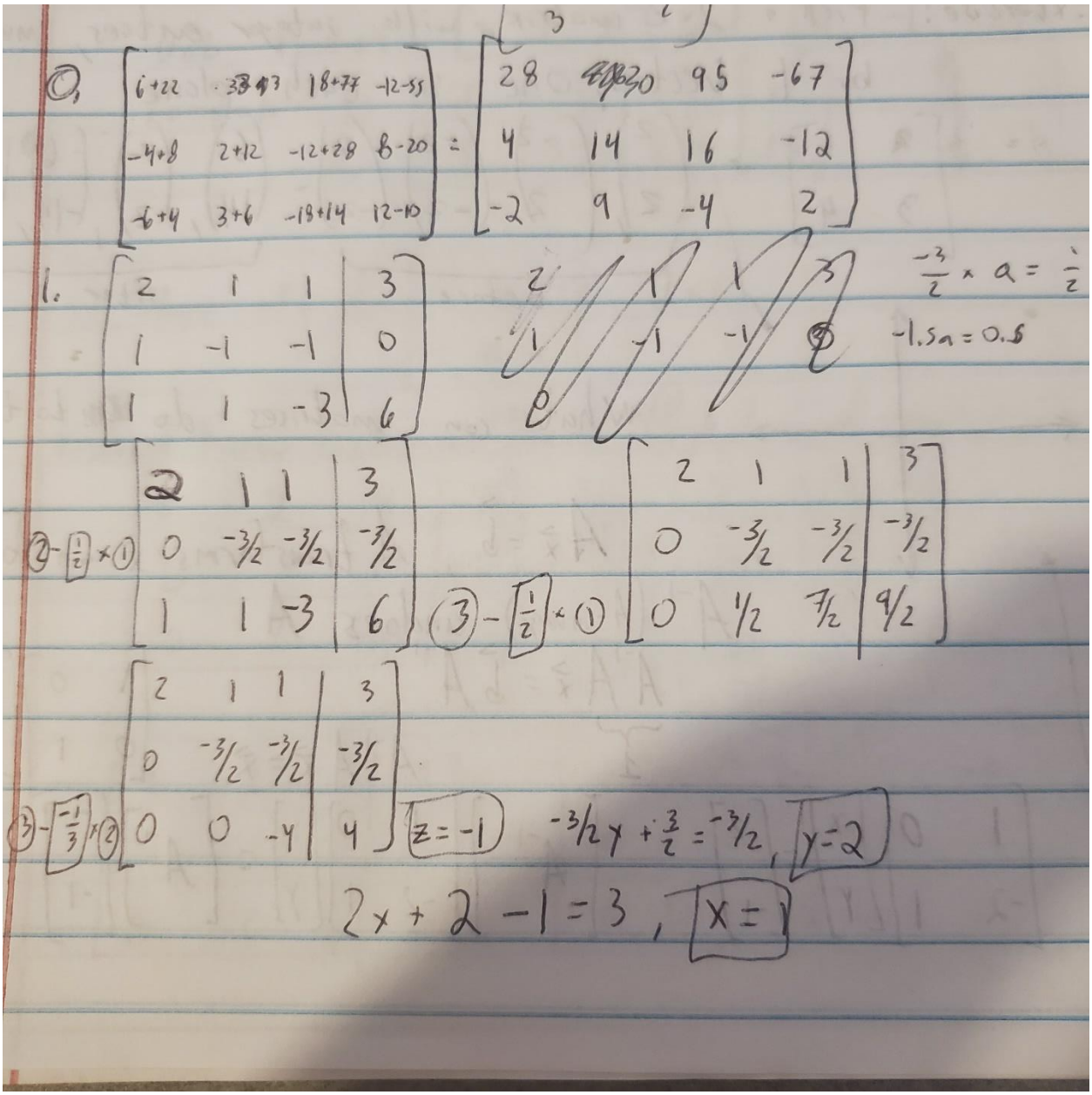


A =

2 1 1 3

1 -1 -1 0

1 1 -3 6

A =

2 1 1 3

0 -3/2 -3/2 -3/2

1 1 -3 6

A =

| | | | |
|---|---|---|---|
| 2 | 1 | 1 | 3 |
| 0 | -3/2 | -3/2 | -3/2 |
| 0 | 1/2 | -7/2 | 9/2 |

A =

| | | | |
|---|---|---|---|
| 2 | 1 | 1 | 3 |
| 0 | -3/2 | -3/2 | -3/2 |
| 0 | 0 | -4 | 4 |

Ared =

| | | |
|---|---|---|
| 2 | 1 | 1 |
| 0 | -3/2 | -3/2 |
| 0 | 0 | -4 |

bred =

| |
|---|
| 3 |
| -3/2 |
| 4 |

X =

| |
|---|
| 1 |
| 2 |
| -1 |

2.

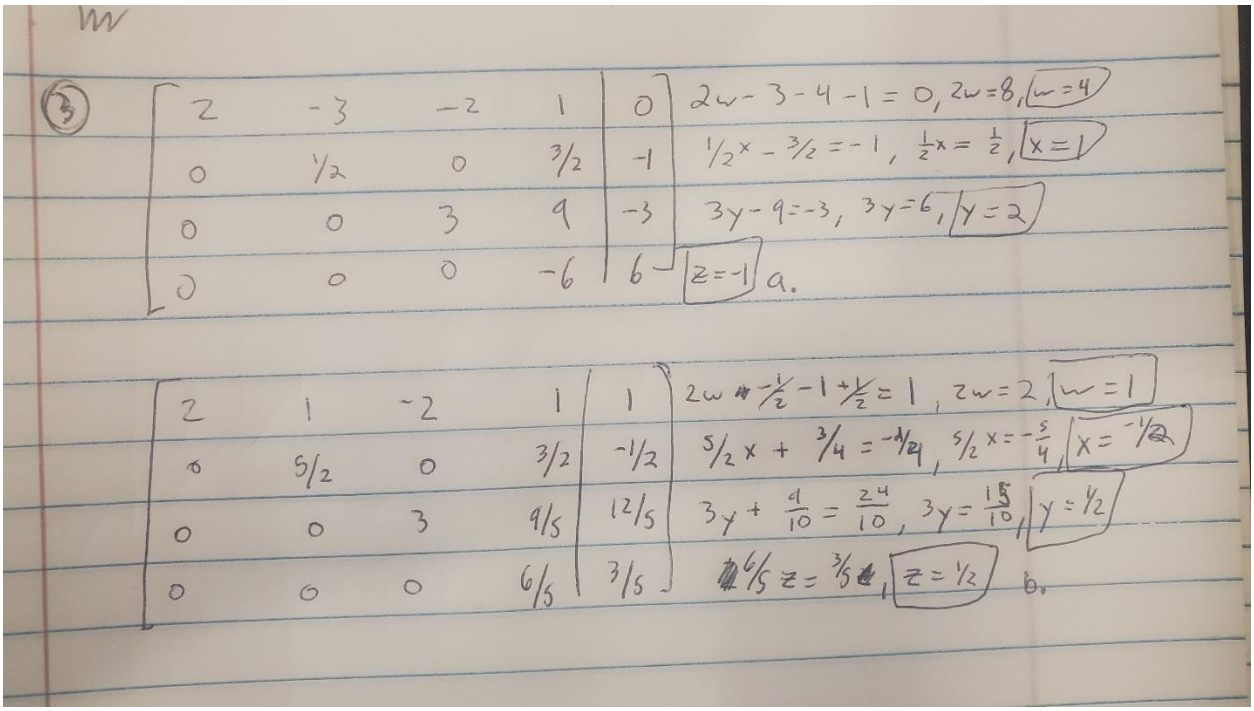
A =

| | | |
|---|---|---|
| 1 | -1 | 5 |
| -1 | 4 | 2 |
| 3 | -1 | 2 |

A =

| | | |
|---|---|---|
| 1 | -1 | 5 |
| 0 | 3 | 7 |

```
    3    -1     2

A =

    1    -1     5

    0     3     7

    0     2   -13

A =

      1          -1          5

      0           3          7

      0           0        -53/3

U =

      1          -1          5

      0           3          7

      0           0        -53/3

L =

      1           0          0

     -1           1          0

      3         2/3          1

A =

      1          -1          5

     -1           4          2

      3          -1          2
```




4.

Ared =

| | | | |
|---|---|---|---|
| 2 | 1 | -2 | 1 |
| 0 | 5/2 | 0 | 3/2 |
| 0 | 0 | 3 | 9/5 |
| 0 | 0 | 0 | 6/5 |

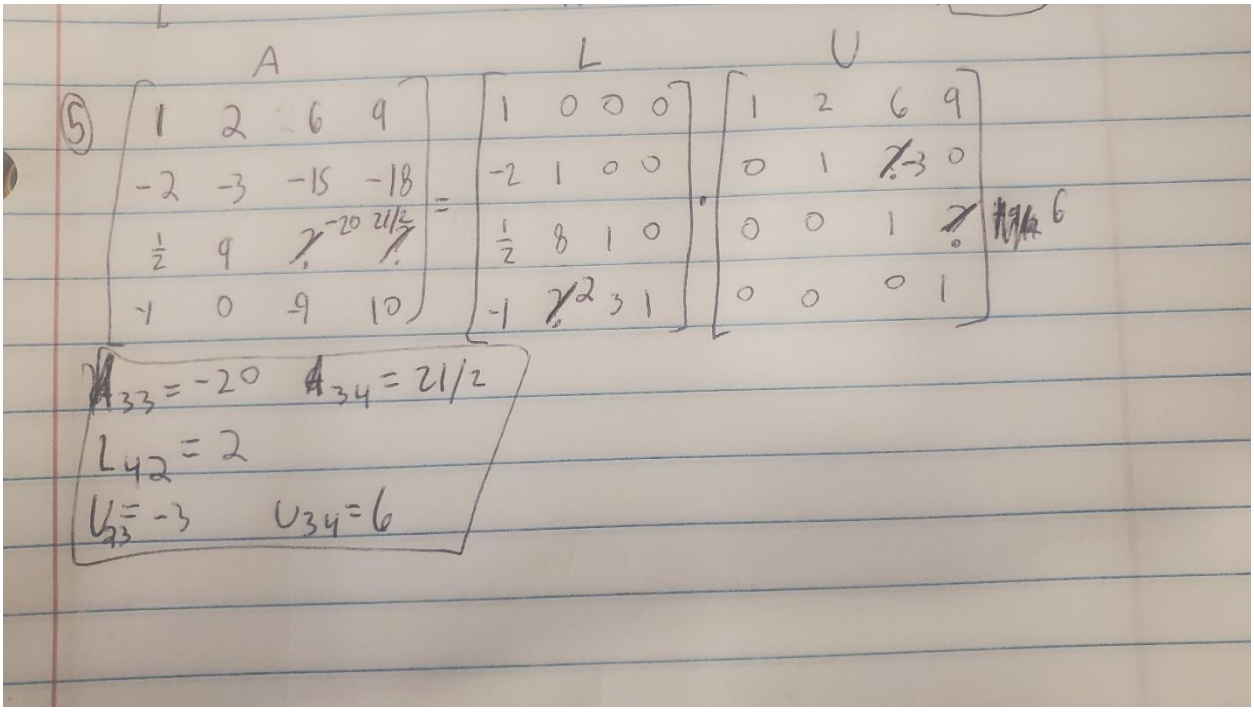
bred =

| |
|---|
| 1 |
| -1/2 |
| 12/5 |
| 3/5 |

X =

| |
|---|
| 1 |
| -1/2 |
| 1/2 |
| 1/2 |

5.


A
L
U
⑤
1 2 6 9
-2 -3 -15 -18
1/2 9 -20 21/2
-1 0 -9 10
1 0 0 0
-2 1 0 0
1/2 8 1 0
-1 2 3 1
1 2 6 9
0 1 -3 0
0 0 1 6
0 0 0 1
$A_{33} = -20$ $A_{34} = 21/2$
$L_{42} = 2$
$U_{33} = -3$ $U_{34} = 6$