Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	4	2	1	3	2	4
1	2	3	5	3	1	4
3	1	5	5	4	5	1
4	5	4	2	0	2	3
5	5	2	5	1	4	3
0	4	2	4	4	0	2
5	1	1	5	1	3	1

IMAGE (SEED: 0)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	5	4	1	2	2	3
4	0	0	5	2	4	0
2	4	1	5	5	0	0
3	5	2	1	2	0	1
2	2	1	1	1	2	1
0	5	3	3	1	5	5
0	1	4	4	5	2	4

IMAGE (SEED: 1)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	5	0	0	5	4	4
1	3	3	3	0	2	2
4	5	5	3	2	1	0
0	2	1	2	5	3	3
1	0	1	0	3	5	4
1	5	4	4	5	4	4
2	5	5	0	4	4	2

IMAGE (SEED: 2)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	3	2	3	3	0	0
5	1	1	5	2	5	2
3	0	3	5	3	4	4
0	4	3	1	0	5	2
4	5	4	5	2	4	2
5	5	0	0	1	5	2
3	1	3	2	2	3	3

IMAGE (SEED: 3)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	0	2	0	0	2	5
4	4	1	3	1	1	0
1	5	4	4	4	1	1
3	4	5	5	0	3	4
3	1	2	0	5	5	3
1	5	3	5	5	3	2
3	2	0	1	4	0	0

IMAGE (SEED: 4)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	4	4	5	4	5	0
2	5	3	5	0	2	1
3	3	0	1	1	5	4
0	4	0	3	0	0	5
1	1	5	5	1	5	3
4	1	5	4	5	5	1
2	0	0	0	1	3	0

IMAGE (SEED: 5)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

4	4	2	1	0	3	2
4	2	4	1	4	4	2
3	4	1	3	4	1	4
4	5	2	0	4	4	2
0	1	3	1	5	3	1
3	2	5	5	3	3	4
4	5	0	2	3	1	3

IMAGE (SEED: 6)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	0	3	0	3	2	0
3	0	2	0	0	2	4
0	1	3	5	3	2	5
0	5	1	0	0	1	4
1	3	3	2	3	0	0
1	4	2	1	3	2	1
4	4	1	3	3	5	4

IMAGE (SEED: 7)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	5	0	4	0	1	5
1	3	2	2	2	1	4
0	1	0	1	2	5	2
0	1	5	0	3	2	3
2	4	2	3	5	3	0
0	5	2	1	5	3	4
5	1	2	5	0	4	0

IMAGE (SEED: 8)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	2	0	5	0	3	5
0	3	3	0	2	4	2
4	0	1	0	3	5	3
4	2	4	0	1	4	4
2	0	1	1	1	4	1
5	5	0	2	2	0	2
5	0	3	0	3	5	1

IMAGE (SEED: 9)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	2	3	1	4	4	3
0	3	1	1	5	5	0
5	3	2	1	4	2	4
3	0	4	5	5	3	0
0	0	5	1	2	5	1
3	2	0	3	5	0	1
2	0	2	4	3	3	5

IMAGE (SEED: 10)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	3	5	2	3	3	1
3	3	4	0	1	0	4
4	0	5	5	3	3	0
0	3	0	1	1	0	2
2	5	3	3	2	3	2
1	5	5	5	4	1	1
1	0	4	2	5	2	5

IMAGE (SEED: 11)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	3	3	0	0	2	1
4	4	3	3	3	0	2
0	5	0	4	0	4	2
2	5	0	0	5	3	0
5	5	0	2	0	1	3
0	4	0	1	4	2	2
3	2	2	0	4	5	5

IMAGE (SEED: 12)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	4	4	5	1	1	0
1	4	0	3	1	1	2
5	3	0	1	0	5	4
4	4	4	5	4	1	5
2	4	3	2	2	2	1
0	4	4	5	4	3	4
0	4	2	1	1	3	1

IMAGE (SEED: 13)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	4	3	5	1	1	4
3	1	4	2	4	0	1
5	2	1	4	3	0	3
3	0	3	0	2	0	1
5	2	5	2	3	5	4
0	3	3	1	0	5	3
1	2	1	4	3	0	4

IMAGE (SEED: 14)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	0	4	0	5	0	5
4	5	5	1	2	4	1
1	1	5	5	4	1	5
3	1	2	2	0	3	2
3	5	3	2	5	5	2
5	0	0	1	5	4	4
1	2	5	0	0	0	2

IMAGE (SEED: 15)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	2	2	2	2	3	1
3	0	1	2	0	4	1
4	5	1	5	4	4	0
2	3	1	1	1	1	4
2	2	3	5	1	0	5
4	4	3	1	0	1	2
0	4	4	0	5	2	5

IMAGE (SEED: 16)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	4	5	1	4	4	3
0	0	2	4	1	3	1
5	5	2	5	0	4	5
0	4	3	5	1	3	5
3	1	0	5	2	5	0
4	4	5	0	2	0	4
2	5	2	4	5	1	3

IMAGE (SEED: 17)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	3	2	1	2	2	2
2	1	1	4	1	4	4
5	5	1	1	4	3	1
4	5	5	1	1	0	5
1	4	3	3	3	4	3
1	0	2	5	0	4	3
0	1	4	2	2	2	0

IMAGE (SEED: 18)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

4	4	3	3	2	5	1
0	1	1	1	1	0	1
1	3	1	0	1	3	2
4	4	2	0	4	4	2
3	1	5	5	4	5	1
3	4	4	2	0	3	0
4	0	2	2	0	2	3

IMAGE (SEED: 19)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	4	4	5	1	3	5
5	3	1	2	5	0	1
5	2	1	1	5	2	2
3	4	2	0	3	0	0
1	4	1	4	0	0	0
4	5	1	1	0	3	1
0	3	3	2	0	3	3

IMAGE (SEED: 20)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	4	3	2	1	4	4
3	3	1	0	2	3	0
4	1	1	0	5	4	5
3	0	1	2	0	5	2
0	4	0	5	2	3	2
2	1	0	5	1	4	1
5	5	4	4	3	4	0

IMAGE (SEED: 21)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	0	0	5	1	0	3
2	5	1	5	1	3	5
4	5	4	0	5	3	1
1	5	3	5	4	5	3
4	3	1	5	1	4	5
3	0	4	4	1	0	3
0	5	3	3	2	3	5

IMAGE (SEED: 22)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	5	5	0	3	2	3
0	1	2	1	2	0	0
4	2	3	4	2	0	4
3	3	3	5	2	4	2
3	3	1	0	2	4	3
2	3	1	1	1	4	1
0	0	0	1	3	4	1

IMAGE (SEED: 23)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

4	5	1	5	1	4	0
4	0	4	4	4	2	5
5	0	3	5	4	2	1
5	0	4	5	0	1	1
3	2	5	5	1	5	0
0	3	4	4	5	5	1
4	5	0	2	0	0	2

IMAGE (SEED: 24)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	5	5	1	5	3	0
5	1	1	2	3	0	4
4	3	4	3	4	1	2
2	0	5	3	0	3	2
1	0	2	0	3	3	0
5	0	1	4	1	2	3
2	2	3	2	0	4	1

IMAGE (SEED: 25)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

4	1	1	3	0	4	4
0	4	3	3	5	5	2
5	4	5	0	5	1	0
3	5	5	2	4	0	5
1	3	0	0	0	3	3
4	5	2	5	1	5	1
5	2	2	3	0	0	3

IMAGE (SEED: 26)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	4	5	1	0	4	1
2	4	1	5	2	0	5
3	0	5	4	4	3	5
0	5	3	1	3	2	3
4	3	0	2	1	4	5
4	3	1	4	1	5	1
5	0	4	2	3	2	1

IMAGE (SEED: 27)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	0	3	1	0	2	2
1	2	5	0	1	0	1
0	5	1	5	0	5	3
4	3	1	1	4	0	0
4	3	1	3	5	1	0
2	1	2	0	4	4	2
2	1	5	5	3	1	1

IMAGE (SEED: 28)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	2	5	1	3	2	2
5	0	2	1	2	5	1
3	2	4	2	1	2	2
4	3	1	4	1	3	1
2	4	3	4	4	3	3
2	3	4	0	5	2	0
0	2	0	2	2	3	2

IMAGE (SEED: 29)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	1	0	3	1	1	2
3	5	2	5	5	1	0
0	5	3	5	5	3	3
0	0	4	4	4	3	4
3	5	0	2	1	4	5
1	0	1	1	4	2	4
1	3	1	3	3	5	5

IMAGE (SEED: 30)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	0	2	4	0	0	1
4	0	4	3	0	3	2
2	5	0	0	5	2	1
1	2	5	1	1	3	3
5	5	2	1	5	5	0
4	5	3	1	4	4	1
3	1	0	2	2	2	3

IMAGE (SEED: 31)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	1	1	5	2	4	0
3	5	3	5	5	2	0
4	0	0	4	5	5	5
1	0	0	5	0	0	0
0	0	2	0	1	5	1
4	4	3	3	4	3	1
1	1	2	5	2	0	2

IMAGE (SEED: 32)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	3	4	1	3	5	5
1	3	3	3	5	3	2
5	3	1	1	2	0	3
4	2	5	5	3	4	0
0	5	1	1	5	4	0
1	1	1	0	3	1	2
1	0	0	5	4	3	0

IMAGE (SEED: 33)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	3	5	5	5	2	5
2	1	0	3	0	1	3
4	4	0	0	1	3	5
4	5	3	3	1	1	1
3	3	3	2	2	1	4
3	4	4	1	0	1	5
4	2	4	2	5	0	4

IMAGE (SEED: 34)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	4	4	5	1	5	3
4	4	5	1	2	4	3
4	2	5	0	4	2	0
4	0	1	1	0	0	0
5	0	0	0	5	3	4
5	2	2	2	1	3	5
3	4	5	4	4	3	0

IMAGE (SEED: 35)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	5	5	5	4	5	0
3	1	4	2	3	3	3
4	5	2	4	5	2	0
2	4	3	1	4	1	5
1	3	2	5	0	5	2
2	1	2	5	5	5	3
1	3	3	1	5	0	1

IMAGE (SEED: 36)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

4	0	3	5	5	3	3
2	3	0	4	3	1	2
4	2	5	5	5	0	0
1	2	4	4	3	3	3
0	3	1	2	0	3	5
0	3	0	2	0	5	4
5	1	4	4	3	5	3

IMAGE (SEED: 37)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	2	4	0	4	2	3
1	2	1	1	4	2	5
3	1	3	3	0	3	0
2	3	4	5	3	0	2
1	4	5	0	4	1	1
2	2	1	1	2	4	0
2	1	4	1	4	0	5

IMAGE (SEED: 38)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	2	1	2	3	3	1
2	1	4	1	5	0	0
2	2	4	5	3	1	4
2	1	1	0	4	0	1
3	3	3	3	4	5	5
2	2	0	2	1	5	4
1	4	4	0	4	4	2

IMAGE (SEED: 39)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	5	0	1	5	3	0
2	5	2	0	5	0	3
3	2	5	1	3	0	5
0	3	4	5	0	5	5
1	4	1	0	0	1	4
2	5	5	1	2	0	3
3	3	0	3	0	5	2

IMAGE (SEED: 40)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	1	0	5	3	4	3
2	4	3	4	3	5	2
0	0	4	1	3	3	0
4	0	5	5	1	4	4
0	4	0	5	4	5	0
1	3	3	1	5	5	1
0	4	2	3	2	2	0

IMAGE (SEED: 41)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	0	1	1	4	4	5
0	2	0	1	3	0	1
3	3	1	3	4	0	4
4	2	0	5	2	0	0
5	3	4	4	3	5	2
3	4	3	5	3	4	0
1	1	0	1	0	1	3

IMAGE (SEED: 42)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	4	0	2	4	4	2
2	0	2	2	5	3	4
2	1	5	4	2	0	3
2	4	3	3	3	2	0
0	5	5	1	5	3	0
5	3	5	4	0	3	4
5	1	3	4	1	5	4

IMAGE (SEED: 43)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	3	5	1	1	0	0
0	0	3	5	4	2	2
4	1	0	5	3	0	0
0	5	0	3	5	0	2
2	5	1	1	1	0	4
4	2	0	4	4	3	1
4	3	3	3	1	2	4

IMAGE (SEED: 44)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

1	2	0	2	0	0	1
0	1	4	0	3	0	4
4	1	5	4	0	2	4
5	1	1	4	5	0	0
4	1	2	5	4	3	5
4	4	3	3	0	5	5
2	3	0	2	3	1	2

IMAGE (SEED: 45)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

5	2	3	5	1	3	3
5	0	0	1	4	5	0
5	3	5	5	0	5	2
0	2	0	4	3	0	1
3	4	1	0	2	0	2
5	1	1	4	1	0	1
3	4	4	0	1	0	3

IMAGE (SEED: 46)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

2	2	2	2	3	2	0
2	0	0	1	5	2	3
5	5	3	1	3	2	5
0	2	4	3	3	4	1
5	5	0	2	2	2	3
1	3	5	5	5	1	4
4	3	4	1	4	1	3

IMAGE (SEED: 47)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

3	0	4	1	5	1	4
0	5	5	0	3	1	3
5	0	1	0	0	2	0
0	4	1	2	2	5	1
3	5	3	1	0	3	1
2	4	4	1	2	1	1
2	0	0	0	1	3	1

IMAGE (SEED: 48)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	

Worksheet on Convolution

Name:

Below you will see, reading from left to right, an image, a 3×3 mask, and a blank 'image' grid of the same size as your image. Your task is to calculate the convolution of the image with the mask, completing the blank grid with the appropriate values. Please show your working below for the top left-hand pixel of your image. You can use the remainder of the page for your calculations if you wish too. Marks are awarded as shown in the table at the foot of the page.

0	2	0	4	3	0	0
4	0	4	3	3	5	3
3	2	1	0	2	2	4
1	2	5	3	3	4	5
1	4	0	1	3	1	2
1	1	2	3	4	2	2
5	4	3	3	0	1	0

IMAGE (SEED: 49)

0	1	0
1	1	1
0	1	0

MASK

RESULT

CATEGORY	AVAILABLE	AWARDED
approach	/12	
accuracy	/13	
Total	/25	