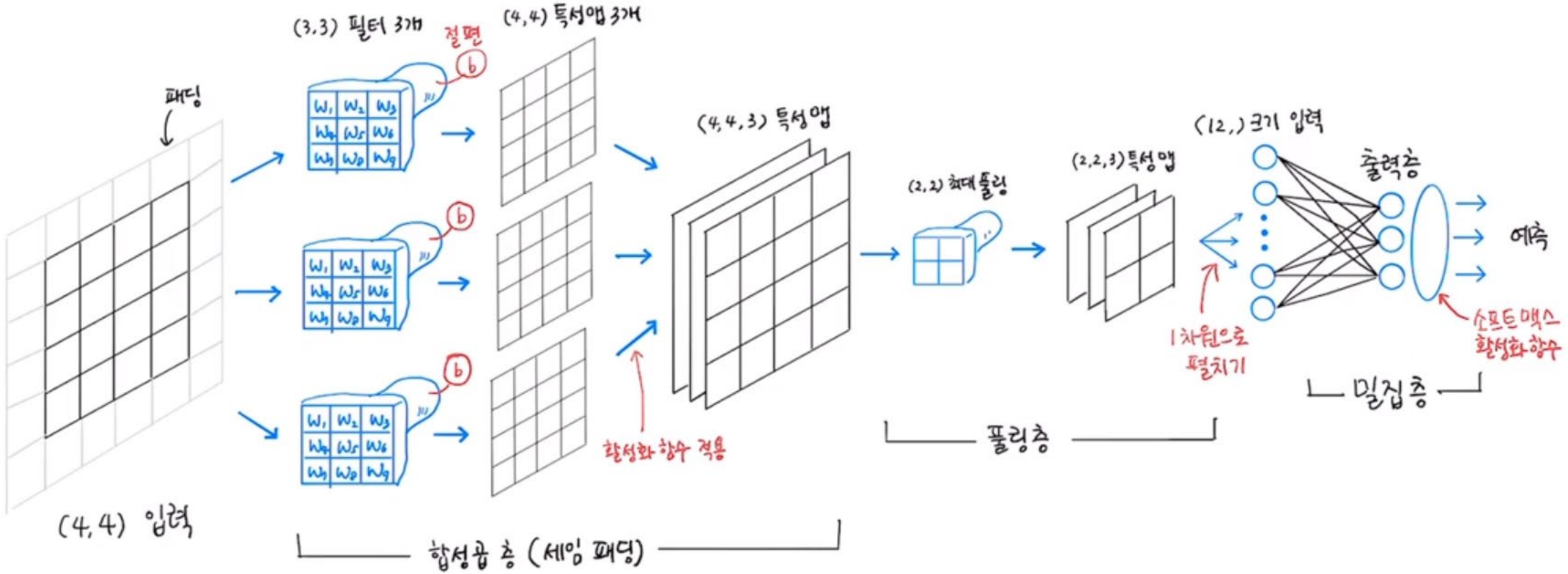
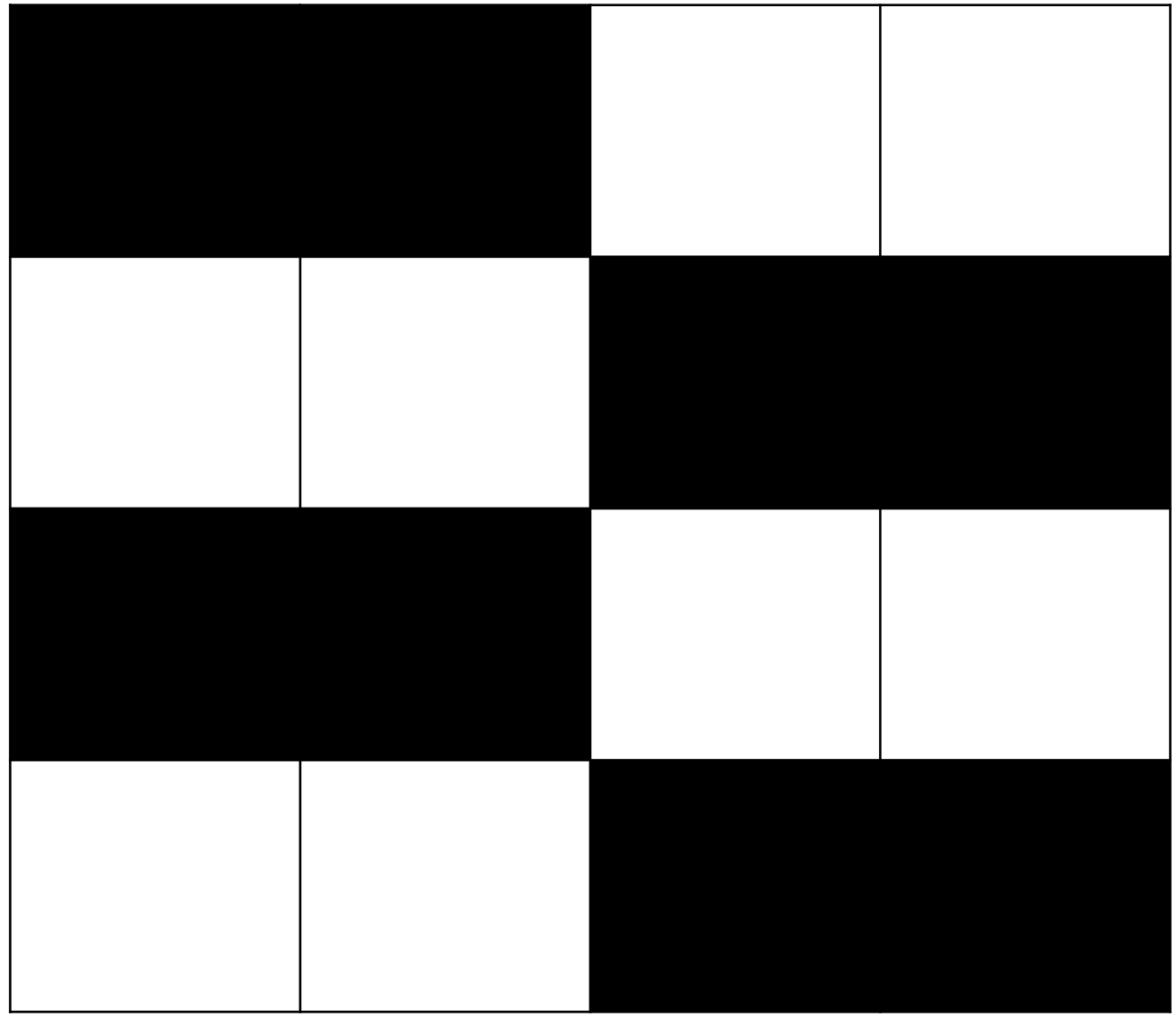
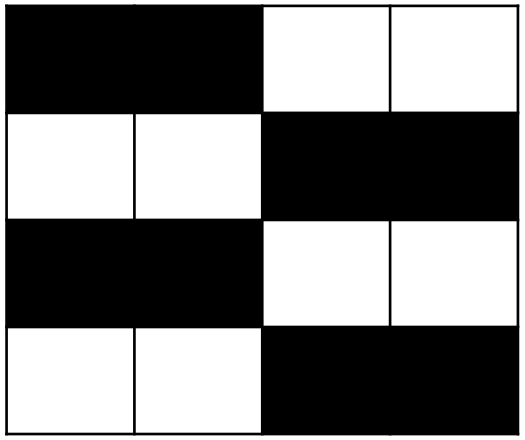
합성곱 신경망


패딩
(3,3) 필터 3개
절편
b
(4,4) 특성맵 3개
(4,4,3) 특성맵
(2,2) 최대 풀링
(2,2,3) 특성맵
(12,) 크기 입력
출력층
예측
1차원으로 펼치기
소프트맥스 활성화 함수
(4,4) 입력
활성화 함수 적용
합성곱 층 (세임 패딩)
풀링층
밀집층





=

(4, 4)

0	0	255	255
255	255	0	0
0	0	255	255
255	255	0	0

reshape

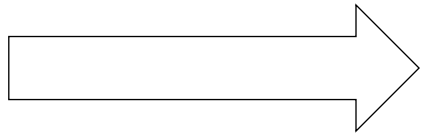
(4, 4, 1)

0	0	1	1
1	1	0	0
0	0	1	1
1	1	0	0

(4, 4, 1)

0	0	1	1
1	1	0	0
0	0	1	1
1	1	0	0

세임 패딩



(6, 6, 1)

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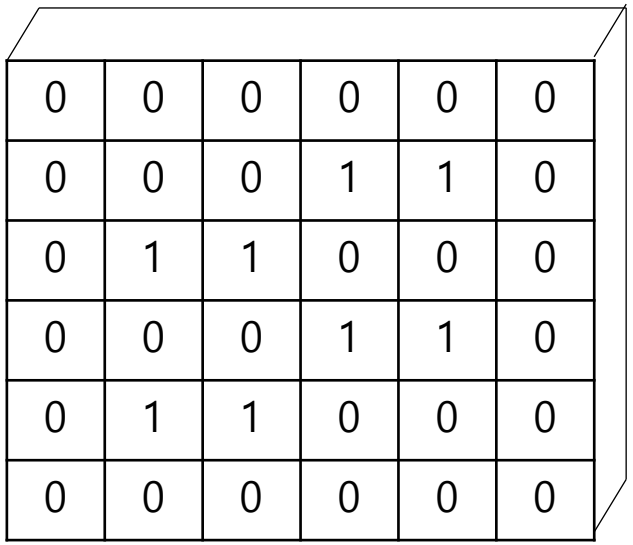
0	0	0	1	1	0
0	1	1	0	0	0
0	0	0	0	0	0

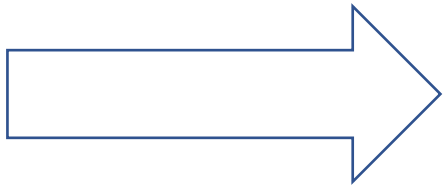
(6, 6, 1)



0	0	0	0	0	0
0	0	0	1	1	0
0	1	1	0	0	0
0	0	0	1	1	0
0	1	1	0	0	0
0	0	0	0	0	0

필터 (절편 0)

1	0	0
1	0	0
1	0	0

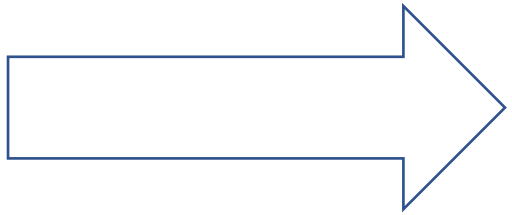


4 x 4 특성맵

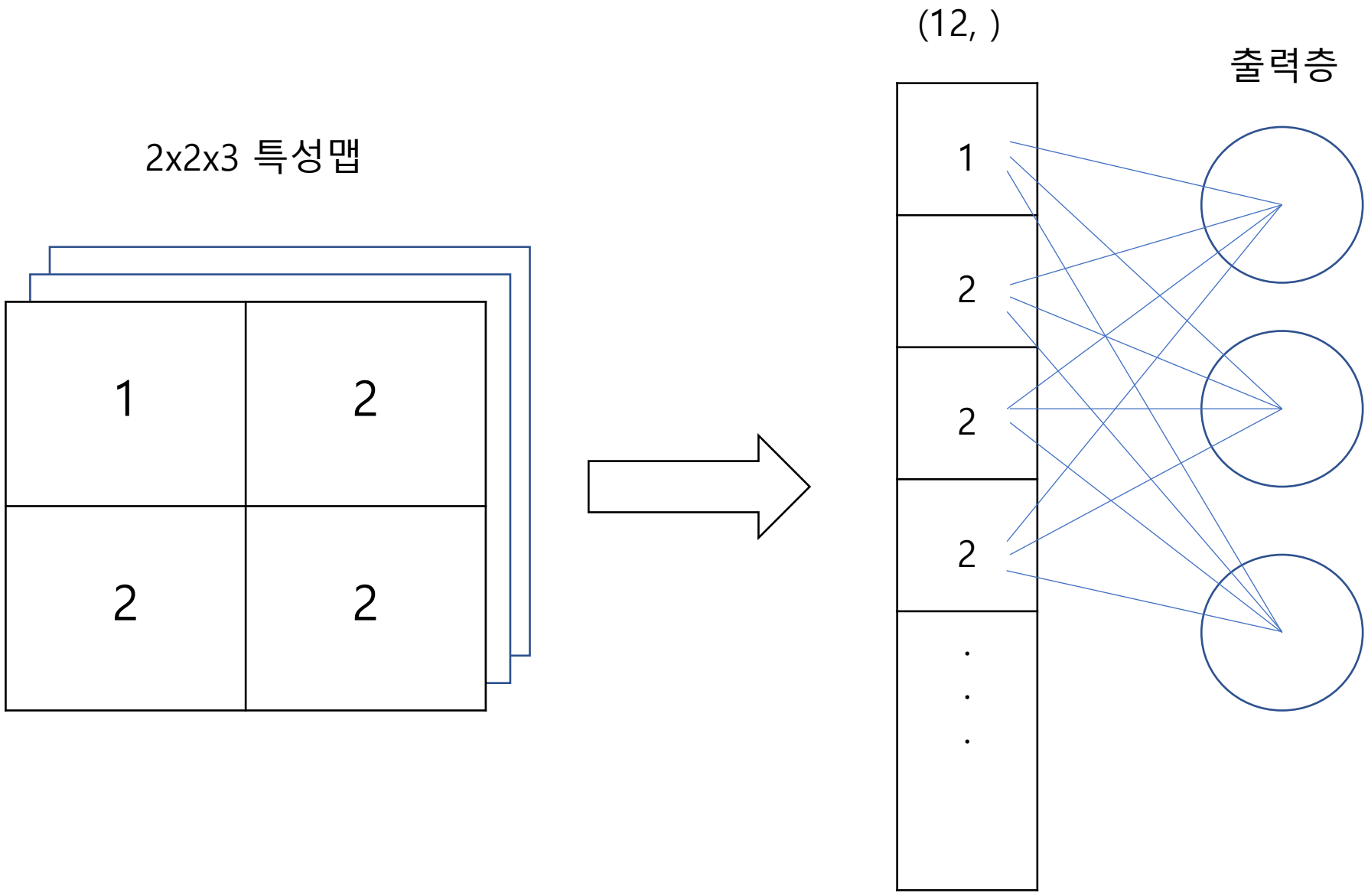
0	1	1	1
0	1	1	2
0	2	2	1
0	1	1	1

0	1	1	1
0	1	1	2
0	2	2	1
0	1	1	1

2x2 최대 풀링



1	2
2	2


2x2x3 특성맵
1
2
2
2
(12,)
출력층
1
2
2
2
.
.
.