2	8	7	9
1	5	6	7
2	3	1	5

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5         sumv = sumv + mat1(ii,jj);
6     end
7  end
```

2	8	7	9
1	5	6	7
2	3	1	5

```
mat1(ii,jj)
```

```
ii \rightarrow 1
jj \rightarrow 1
sumv \rightarrow 2
```

2	8	7	9
1	5	6	7
2	3	1	5

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 1
jj \rightarrow 2
sumv \rightarrow 10
```

2	8	7	9
1	5	6	7
2	3	1	5

```
mat1(ii,jj)
```

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 1
jj \rightarrow 3
sumv \rightarrow 17
```

2	8	7	9	
1	5	6	7	
2	3	1	5	

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 1
jj \rightarrow 4
sumv \rightarrow 26
```

2	8	7	9
1	5	6	7
2	3	1	5

```
mat1(ii,jj)
```

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

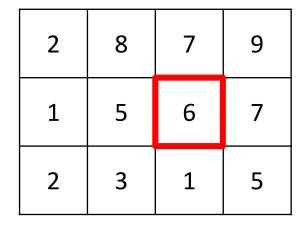
```
ii \rightarrow 2
jj \rightarrow 1
sumv \rightarrow 27
```

2	8	7	9
1	5	6	7
2	3	1	5

```
mat1(ii,jj)
```

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5         sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 2
jj \rightarrow 2
sumv \rightarrow 32
```



```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 2
jj \rightarrow 3
sumv \rightarrow 38
```

2	8	7	9	
1	5	6	7	
2	3	1	5	

```
1  mat1 = [2 8 7 9; 1 5 6 7; 2 3 1 5];
2  sumv = 0;
3  for ii=1:3
4     for jj=1:4
5     sumv = sumv + mat1(ii,jj);
6     end
7  end
```

```
ii \rightarrow 2
jj \rightarrow 4
sumy \rightarrow 45
```

v	d	а	k	w	а	-	h	Z
j	S	а	u	е	а	u	g	х
h	q	d	k	r	d	У	f	С
b	w	У	k	t	f	t	d	٧
а	e	u	h	u	v	r	S	b
n	f	I	S	h	е	V	q	n
а	d	W	S	t	q	e	>	m
n	S	e	d	n	w	w	e	Ι
а	а	S	f	h	е	q	У	k
w	е	r	t	у	u	ı	h	j
	j h b a n	j s h q b w a e n f a d n s a a	j s a h q d b w y a e u n f l a d w n s e a a s	j s a u h q d k b w y k a e u h n f l s a d w s n s e d a a s f	j s a u e h q d k r b w y k t a e u h u n f I s h a d w s t n s e d n a a s f h	j s a u e a h q d k r d b w y k t f a e u h u v n f I s h e a d w s t q n s e d n w a a s f h e	j s a u e a u h q d k r d y b w y k t f t a e u h u v r n f I s h e w a d w s t q e n s e d n w w a a s f h e q	j s a u e a u g h q d k r d y f b w y k t f t d a e u h u v r s n f I s h e w q a d w s t q e w n s e d n w w e a a s f h e q y

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 1
jj \rightarrow 1
test loc \rightarrow [1:6]
```

a	٧	d	а	k	w	а	I	h	z
w	j	S	а	u	e	а	u	g	х
d	h	q	d	k	r	đ	У	f	С
f	b	w	У	k	t	f	t	d	٧
d	a	e	u	h	u	v	r	S	b
S	n	f	ı	S	h	е	V	q	n
a	а	d	W	S	t	q	e	>	m
q	n	S	е	d	n	w	w	e	I
у	а	а	S	f	h	е	q	У	k
q	w	е	r	t	у	u	ı	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 1

jj \rightarrow 2

test\_loc \rightarrow [2:7]
```

v	d	а	k	w	а	-	h	z
j	S	а	u	e	а	a	۵۵	х
h	q	d	k	r	d	У	f	С
b	w	У	k	t	f	t	d	٧
а	е	u	h	u	v	r	S	b
n	f	I	S	h	е	w	q	n
а	d	w	S	t	q	e	w	m
n	S	е	d	n	w	w	e	Τ
а	а	S	f	h	е	q	У	k
w	е	r	t	у	u	_	h	j
	j h b a n a	j s h q b w a e n f a d n s a a	j s a h q d b w y a e u n f l a d w n s e a a s	j s a u h q d k b w y k a e u h n f I s a d w s n s e d a a s f	j s a u e h q d k r b w y k t a e u h u n f I s h a d w s t n s e d n a a s f h	j s a u e a h q d k r d b w y k t f a e u h u v n f I s h e a d w s t q n s e d n w a a s f h e	j s a u e a u h q d k r d y b w y k t f t a e u h u v r n f I s h e w a d w s t q e n s e d n w w a a s f h e q	j s a u e a u g h q d k r d y f b w y k t f t d a e u h u v r s n f I s h e w q a d w s t q e w n s e d n w w e a a s f h e q y

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 1
jj \rightarrow 3
test loc \rightarrow [3:7]
```

а	٧	d	а	k	w	а	ı	h	Z
W	j	S	а	u	е	а	u	g	Х
d	h	q	d	k	r	d	У	f	С
f	b	>	У	k	t	f	t	а	٧
d	a	e	u	h	u	٧	r	S	b
S	n	f	ı	S	h	е	w	q	n
а	а	d	W	S	t	q	e	>	m
q	n	S	е	d	n	W	W	е	I
у	а	а	S	f	h	е	q	У	k
q	w	е	r	t	У	u	I	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 1
jj \rightarrow 4
test\_loc \rightarrow [4:8]
```

```
test_word col_vec
```

a	V	d	а	k	w	а	I	h	Z
w	j	S	а	u	e	а	a	g	х
d	h	q	d	k	r	а	У	f	С
f	b	>	У	k	t	f	t	d	>
d	а	е	u	h	u	>	r	S	b
S	n	f	_	S	h	e	>	q	n
а	а	d	W	S	t	q	e	V	m
q	n	S	e	d	n	8	>	е	I
У	а	а	S	f	h	е	q	У	k
q	w	е	r	t	у	u	I	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 1
jj \rightarrow 5
test loc \rightarrow [5:9]
```

а	٧	d	а	k	W	а	-	h	Z
W	j	S	а	u	е	а	a	ф	х
d	h	q	d	k	r	đ	У	f	С
f	b	W	У	k	t	f	t	d	V
d	а	e	u	h	u	٧	r	S	b
S	n	f	ı	S	h	е	V	q	n
а	а	d	8	S	t	q	e	V	m
q	n	S	е	d	n	>	>	e	I
у	a	а	S	f	h	е	q	у	k
q	w	е	r	t	у	u	Ι	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 2

jj \rightarrow 1

test\_loc \rightarrow [1:6]
```

а	٧	d	а	k	W	а	Ι	h	Z
×	j	S	а	u	e	а	a	۵۵	х
d	h	q	d	k	r	đ	У	f	С
f	b	8	У	k	t	f	t	d	v
d	а	e	u	h	u	٧	r	S	b
S	n	f	_	S	h	e	>	q	n
а	а	d	W	S	t	q	e	>	m
q	n	S	e	d	n	>	>	e	I
у	а	а	S	f	h	е	q	У	k
q	w	е	r	t	у	u	I	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 2

jj \rightarrow 2

test loc \rightarrow [2:7]
```

а	٧	d	а	k	W	а	-	h	Z
v	j	S	а	u	e	а	a	ф	х
d	h	q	d	k	r	đ	У	f	С
f	b	W	У	k	t	f	t	d	V
d	а	е	u	h	u	٧	r	S	b
S	n	f	ı	S	h	е	V	q	n
а	а	d	W	S	t	q	e	V	m
q	n	S	e	d	n	>	>	e	I
у	a	а	S	f	h	е	q	у	k
q	W	е	r	t	у	u	-	h	j

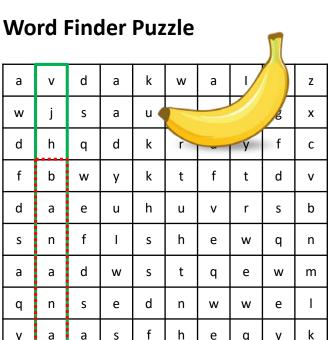
```
puzzle_size → 10
n_word → 6
puzzle_size-n_word+1 → 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 2

jj \rightarrow 3

test\_loc \rightarrow [3:7]
```



```
puzzle_size → 10
n_word → 6
puzzle_size-n_word+1 → 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 2
jj \rightarrow 4
test\_loc \rightarrow [4:8]
```

test_word col_vec

u

w

а	٧	d	а	k	W	а	Ι	h	Z
W	j	S	а	u	e	а	a	gg	х
d	h	q	d	k	r	đ	У	f	С
f	b	w	У	k	t	f	t	d	V
d	а	e	u	h	u	٧	r	S	b
S	n	f	ı	S	h	е	V	q	n
а	а	d	W	S	t	q	e	V	m
q	n	S	e	d	n	>	>	e	I
у	а	а	S	f	h	е	q	у	k
q	w	е	r	t	у	u	Ι	h	j

```
puzzle_size \rightarrow 10
n_word \rightarrow 6
puzzle_size-n_word+1 \rightarrow 5
```

```
for ii=1:puzzle_size
    col_vec = puzzle(:,ii);
    for jj=1:(puzzle_size-n_word+1)
        test_loc = jj:(jj+n_word-1);
        test_word = col_vec(test_loc);
    end
end
```

```
ii \rightarrow 2

jj \rightarrow 5

test\_loc \rightarrow [5:9]
```

```
test_word col_vec
```