

Try a few moves:

```

+---+---+---+---+---+---+---+---+
8 | bR | bN | bB | bQ | bK | bB | bN | bR |
+---+---+---+---+---+---+---+---+
7 | bP | bP | bP | bP | bP | bP | bP | bP |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP | wP | wP | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB | wN | wR |
+---+---+---+---+---+---+---+---+
    a   b   c   d   e   f   g   h

```

e2-e4

```

+---+---+---+---+---+---+---+---+
8 | bR | bN | bB | bQ | bK | bB | bN | bR |
+---+---+---+---+---+---+---+---+
7 | bP | bP | bP | bP | bP | bP | bP | bP |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   | wP |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP | wP |   | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB | wN | wR |
+---+---+---+---+---+---+---+---+
    a   b   c   d   e   f   g   h

```

b7-b6

```

+---+---+---+---+---+---+---+---+
8 | bR | bN | bB | bQ | bK | bB | bN | bR |
+---+---+---+---+---+---+---+---+
7 | bP |   | bP | bP | bP | bP | bP | bP |
+---+---+---+---+---+---+---+---+
6 |   | bP |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   | wP |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP | wP |   | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB | wN | wR |
+---+---+---+---+---+---+---+---+
    a   b   c   d   e   f   g   h

```

wNg1-f3

```

+---+---+---+---+---+---+---+---+
8 | bR | bN | bB | bQ | bK | bB | bN | bR |

```

7		bP				bP		bP		bP		bP		bP		bP	
6				bP													
5																	
4								wP									
3										wN							
2		wP		wP		wP		wP				wP		wP		wP	
1		wR		wN		wB		wQ		wK		wB				wR	
		a		b		c		d		e		f		g		h	

bBc8-b7

8		bR		bN				bQ		bK		bB		bN		bR	
7		bP		bB		bP		bP		bP		bP		bP		bP	
6				bP													
5																	
4										wP							
3												wN					
2		wP		wP		wP		wP				wP		wP		wP	
1		wR		wN		wB		wQ		wK		wB				wR	
		a		b		c		d		e		f		g		h	

d2-d3

8		bR		bN				bQ		bK		bB		bN		bR	
7		bP		bB		bP		bP		bP		bP		bP		bP	
6				bP													
5																	
4										wP							
3										wP				wN			
2		wP		wP		wP						wP		wP		wP	
1		wR		wN		wB		wQ		wK		wB				wR	
		a		b		c		d		e		f		g		h	

bBb7xe4

8		bR		bN				bQ		bK		bB		bN		bR	
7		bP				bP		bP		bP		bP		bP		bP	

```

6 |   | bP |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   | bB |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   | wP |   | wN |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP |   |   | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB |   | wR |
+---+---+---+---+---+---+---+---+
  a   b   c   d   e   f   g   h

```

d3xe4

```

+---+---+---+---+---+---+---+---+
8 | bR | bN |   | bQ | bK | bB | bN | bR |
+---+---+---+---+---+---+---+---+
7 | bP |   | bP | bP | bP | bP | bP | bP |
+---+---+---+---+---+---+---+---+
6 |   | bP |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   | wP |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   | wN |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP |   |   | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB |   | wR |
+---+---+---+---+---+---+---+---+
  a   b   c   d   e   f   g   h

```

Reset board

```

+---+---+---+---+---+---+---+---+
8 | bR | bN | bB | bQ | bK | bB | bN | bR |
+---+---+---+---+---+---+---+---+
7 | bP | bP | bP | bP | bP | bP | bP | bP |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 | wP | wP | wP | wP | wP | wP | wP | wP |
+---+---+---+---+---+---+---+---+
1 | wR | wN | wB | wQ | wK | wB | wN | wR |
+---+---+---+---+---+---+---+---+
  a   b   c   d   e   f   g   h

```

Test En Passant

```

+---+---+---+---+---+---+---+---+
8 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |

```

5									
4		wP		bP					
3									
2									
1									
	a	b	c	d	e	f	g	h	

b4xa3

8									
7									
6									
5									
4									
3		bP							
2									
1									
	a	b	c	d	e	f	g	h	

Test promotion

8									
7			wP						
6									
5									
4									
3									
2									
1									
	a	b	c	d	e	f	g	h	

b7-b8wQ

8			wQ						
7									
6									
5									

```

4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Test Castle: 0-0

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   |   | wK |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

0-0

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   |   | wR | wK |   |   |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: false

Can black castle: true

0-0

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   |   | bR | bK |   |   |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |

```

```

+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   |   | wR | wK |   |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: false

Can black castle: false

Test Castle: 0-0-0

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   | wK |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

0-0-0

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   | wK | wR |   |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: false

Can black castle: true

0-0-0

```

+---+---+---+---+---+---+---+---+

```

```

8 |   |   | bK | bR |   |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   | wK | wR |   |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: false

Can black castle: false

Test move with king

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   | wK |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

wKe1-e2

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   | wK |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   |   |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: false

Can black castle: true

Test move with rooks

```

+---+---+---+---+---+---+---+---+
8 | bR |   |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 | wR |   |   |   |   | wK |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

wRa1xa8

```

+---+---+---+---+---+---+---+---+
8 | wR |   |   |   |   | bK |   |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   |   |   |   | wK |   |   | wR |
+---+---+---+---+---+---+---+---+
    a     b     c     d     e     f     g     h

```

Can white castle: true

Can black castle: true

bKe8-f8

```

+---+---+---+---+---+---+---+---+
8 | wR |   |   |   |   |   | bK |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   |   |   |   | wK |   |   | wR |

```



```
+---+---+---+---+---+---+---+---+
  a    b    c    d    e    f    g    h
```

Can white castle: true
Can black castle: false

wRh1-h4

```
+---+---+---+---+---+---+---+---+
8 | wR |   |   |   |   | bK |   | bR |
+---+---+---+---+---+---+---+---+
7 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
6 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
5 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
4 |   |   |   |   |   |   |   | wR |
+---+---+---+---+---+---+---+---+
3 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
2 |   |   |   |   |   |   |   |   |
+---+---+---+---+---+---+---+---+
1 |   |   |   |   |   | wK |   |   |
+---+---+---+---+---+---+---+---+
  a    b    c    d    e    f    g    h
```

Can white castle: false
Can black castle: false
