

a	a	b	c	d	d	e	f	g
0	1	2	3	4	5	6	7	8

 = s2

substr(s1, s2) = 5

d	e	f
0	1	2

 = s1  
(which indexes)

Where might a match start?

Say s1.length() = l1  
s2.length() = l2.

Could be from 0, ..., l2-l1.

// Enumerate all possible starting points:

```
for (int i = 0; i <= l2-l1; i++) {
    if (*match starting @ i *)
        return i;
```

}  
return -1; // no match found. ← how?

How to test for match starting @ i?

(Aside: kind of like prime test:

need to evaluate large boolean expr:

$(n \% 2 \neq 0) \&\& (n \% 3 \neq 0) \&\& (n \% 4 \neq 0) \dots$   
 $\&\& (n \% (n-1) \neq 0)$

match @ i:

$(s1[0] == s2[i]) \&\& (s1[1] == s2[i+1])$

$\dots \&\& (s1[l1-1] == s2[i+l1-1])$