

Informatik - Exercise Session

Characters and Recursion¹

¹Recursion, see ¹

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To append a single element to the end of a vector, use:

```
auto vec = std::vector<char>();  
char c = ?;  
vec.push_back(c);
```

ASCII

Excerpt of an ASCII table (the rest are unprintable control sequences or special characters):

int	char	int	char	int	char	int	char	int	char	int	char
32	␣	48	0	64	@	80	P	96	'	112	p
33	!	49	1	65	A	81	Q	97	a	113	q
34	"	50	2	66	B	82	R	98	b	114	r
35	#	51	3	67	C	83	S	99	c	115	s
36	\$	52	4	68	D	84	T	100	d	116	t
37	%	53	5	69	E	85	U	101	e	117	u
38	&	54	6	70	F	86	V	102	f	118	v
39	'	55	7	71	G	87	W	103	g	119	w
40	(	56	8	72	H	88	X	104	h	120	x
41	)	57	9	73	I	89	Y	105	i	121	y
42	*	58	:	74	J	90	Z	106	j	122	z
43	+	59	;	75	K	91	[	107	k	123	{
44	,	60	<	76	L	92	\	108	l	124	
45	-	61	=	77	M	93]	109	m	125	}
46	.	62	>	78	N	94	^	110	n	126	~
47	/	63	?	79	O	95	_	111	o	127	DEL

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Power Function

Consider the following function:

```
int f(const int x, const int n) {  
    if (n == 0) {  
        return 1;  
    } else if (n == 1) {  
        return x;  
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    return x * f(x, n-1);  
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$f(x, 7) \rightarrow f(x, 6) \rightarrow f(x, 5) \rightarrow f(x, 4) \rightarrow f(x, 3) \rightarrow f(x, 2) \rightarrow f(x, 1)$.