

IRREDUCIBLE POLYNOMIALS IN $\mathbf{F}_p[T]$

Here is a monic irreducible of each degree up to degree 9 over \mathbf{F}_2 , \mathbf{F}_3 , \mathbf{F}_5 , and \mathbf{F}_7 .

n	Irreducible of degree n in $\mathbf{F}_2[T]$
1	T
2	$T^2 + T + 1$
3	$T^3 + T + 1$
4	$T^4 + T + 1$
5	$T^5 + T^2 + 1$
6	$T^6 + T + 1$
7	$T^7 + T + 1$
8	$T^8 + T^4 + T^3 + T + 1$
9	$T^9 + T + 1$

n	Irreducible of degree n in $\mathbf{F}_3[T]$
1	T
2	$T^2 + 1$
3	$T^3 + 2T + 1$
4	$T^4 + T + 2$
5	$T^5 + 2T + 1$
6	$T^6 + T + 2$
7	$T^7 + T^2 + 2$
8	$T^8 + T^2 + 2$
9	$T^9 + 2T^3 + T^2 + 1$

n	Irreducible of degree n in $\mathbf{F}_5[T]$
1	T
2	$T^2 + 2$
3	$T^3 + T + 1$
4	$T^4 + 2$
5	$T^5 + 4T + 1$
6	$T^6 + T + 2$
7	$T^7 + T + 1$
8	$T^8 + 2$
9	$T^9 + T^2 + 2T + 3$

n	Irreducible of degree n in $\mathbf{F}_7[T]$
1	T
2	$T^2 + 1$
3	$T^3 + 2$
4	$T^4 + T + 1$
5	$T^5 + T + 3$
6	$T^6 + 2$
7	$T^7 + 6T + 1$
8	$T^8 + T + 3$
9	$T^9 + 2$