2.3 Prime Numbers

M302

1. The Sieve of Eratosthenes

(**a**) Cross out 1 in the array below.
(**b**) The number 2 is prime. Circle it, and cross out all multiples of 2.
(**c**) The number 3 is prime. Circle it, and cross out all multiples of 3.
(**d**) Continue this process until you have circled or crossed out every number.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

2. Determine whether each number is prime. If not, find its prime factorization.

(**a**) 147 (**b**) 97 (**c**) 318