

Homework Sheet : Prime Numbers

Y6

THE SEIVE OF ERASTOSTHENES

Erastosthenes was a famous mathematician in Ancient Greece. He discovered a way of finding prime numbers known as the “Seive of Erastosthenes”. A prime number is a number which is divisible only by itself and one. Note that 1 is *not* a prime number.

Use five different coloured pens or pencils.

Follow the directions to find the prime numbers to 100.

- 1 Cross out 1 with a pencil.
- 2 Draw a circle around 2, 3, 5 and 7 with the same pencil.
- 3 Use a different colour. Cross out all the multiples of 2, leaving 2 itself.
- 4 Use a third colour. Cross out all the multiples of 3, except for 3.
- 5 Use a fourth colour. Cross out all the multiples of 5, except for 5.
- 6 Use a fifth colour. Cross out all the multiples of 7, except for 7.
- 7 Use your first colour again. Draw circles around all the numbers that are left. These are the prime numbers to 100.
- 8 How many prime numbers have you found?

Write out the prime numbers.
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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