

Name _____

Date _____

1. A student used the sieve of Eratosthenes to find all prime numbers less than 100. Create a step-by-step set of directions to show how it was completed. Use the word bank to help guide your thinking as you write the directions. Some words may be used just once, more than once, or not at all.

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

Word Bank

composite	cross out
number	shade
circle	X
multiple	prime

Directions for completing the sieve of Eratosthenes activity:

2. What do all of the numbers that are crossed out have in common?

3. What do all of the circled numbers have in common?

4. There is one number that is neither crossed out nor circled. Why is it treated differently?

Answer Key

1. Answers will vary.
2. Composite
3. Prime
4. 1; neither prime nor composite