Hwa Chong Institution
Integrated Programme/SBGE
Secondary One Mathematics

Name: _____ ( ) ***Class:*** _____ ***Date:*** _____

Arithmetic ***Worksheet***

Prime Numbers

Objective: ***To sort prime numbers from composite numbers using the Sieve of Eratosthenes***

Sieve of Eratosthenes

After the watching the video, you should be able to sort out all the prime numbers from the composite numbers within 101 to 200. Try it out!

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

How many prime numbers from 101 to 120 did you get?

_____

Prime Puzzle

There is a message hidden in the puzzle. Cross out this letters in the boxes containing numbers that are not prime numbers to discover the message in the remaining boxes.

D 7	F 6	I 2	R 8	V 19	I 11	M 12	F 60	S 3	K 9	S 14	O 59	Z 35	R 11	S 37
O 4	A 3	R 31	M 25	E 23	S 10	D 29	M 12	I 41	V 97	H 24	I 23	N 83	E 13	A 12
B 71	U 2	R 35	T 3	T 27	F 43	G 42	A 37	I 64	C 7	T 5	R 45	O 13	R 11	S 71
N 9	E 14	U 69	M 32	A 17	S 87	F 48	G 75	O 26	R 19	K 9	E 97	W 8	T 27	D 57
F 67	R 2	C 16	I 89	M 18	E 7	T 12	E 9	N 17	D 73	L 67	X 49	I 59	E 29	R 83

Write down your message!

_____

_____

Goldbach's Bingo

Background: Christian Goldbach was born in Prussia in 1690. He died in Russia in 1764. Goldbach's study of mathematics led him to propose that **every even number (except the number two) was the sum of two prime numbers**. This idea is called **Goldbach's Conjecture** in his honour.

See if you can win the game of Goldbach's Bingo below by solving each square of any row, column, or diagonal. To solve each square, you must figure out the two prime numbers that are added together to get the even number shown.

194 __ + __	46 __ + __	200 __ + __	64 __ + __	164 __ + __
70 __ + __	76 __ + __	118 __ + __	66 __ + __	74 __ + __
78 __ + __	50 __ + __	10 3 + 7	100 __ + __	300 __ + __
144 __ + __	92 __ + __	60 __ + __	130 __ + __	120 __ + __
240 __ + __	160 __ + __	80 __ + __	132 __ + __	180 __ + __