********** **Mathematical Weekly** **********

(week nine)

$$1 = 1^2$$
$$1 + 3 = 2^2$$
$$1 + 3 + 5 = 3^2$$
$$1 + 3 + 5 + 7 = 4^2$$
$$1 + 3 + 5 + 7 + 9 = 5^2$$
$$1 + 3 + 5 + 7 + 9 + 11 = 6^2$$
$$1 + 3 + 5 + 7 + 9 + 11 + 13 = 7^2$$
.....

$$1 = 1^3$$
$$3 + 5 = 2^3$$
$$7 + 9 + 11 = 3^3$$
$$13 + 15 + 17 + 19 = 4^3$$
$$21 + 23 + 25 + 27 + 29 = 5^3$$
$$31 + 33 + 35 + 37 + 39 + 41 = 6^3$$
$$43 + 45 + 47 + 49 + 51 + 53 + 55 = 7^3$$
.....

$$2^0 + 2^0 = 2^1$$
$$2^1 + 2^1 = 2^2$$
$$2^2 + 2^2 = 2^3$$
$$2^3 + 2^3 = 2^4$$
$$2^4 + 2^4 = 2^5$$
. . . . . .

$$3^0 + 3^0 + 3^0 = 3^1$$
$$3^1 + 3^1 + 3^1 = 3^2$$
$$3^2 + 3^2 + 3^2 = 3^3$$
$$3^3 + 3^3 + 3^3 = 3^4$$
$$3^4 + 3^4 + 3^4 = 3^5$$
. . . . . .
. . . . . .

$$n^0 + n^0 + \ldots + n^0 = n^1$$

$$n^1 + n^1 + \ldots + n^1 = n^2$$

. . . . . .

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Spring 2002