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Final Draft

Group A

1.2

$$1 + 3 = 4 \rightarrow 2^2$$

$$1 + 3 + 5 = 9 \rightarrow 3^2$$

$$1 + 3 + 5 + 7 = 16 \rightarrow 4^2$$

$$1 + 3 + 5 + 7 + 9 = 25 \rightarrow 5^2$$

the sum of the odd numbers = n^2 starting at $n=1$, n also represents the amount of numbers that are added.

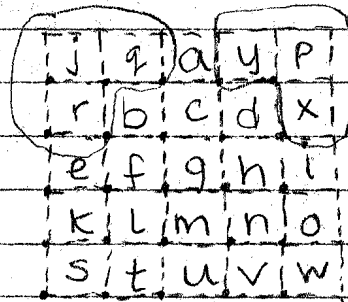
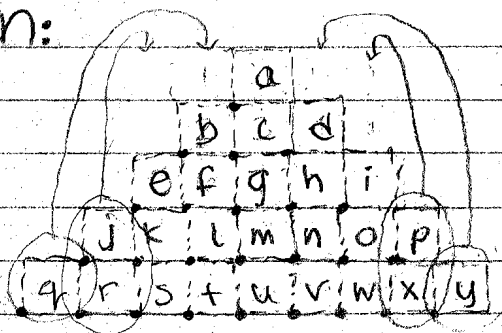
ex:

$1 + 3 + 5 = 9$ since 3 numbers are added then $n=3$ and therefore $3^2 = 9 \checkmark$

Geometric verification:

$$1 + 3 + 5 + 7 + 9 = 25$$

Area = sum of boxes
where the dots
are the the lower
left corner of box



$$\uparrow$$

$$5^2 = 25$$

1/21/06

Extension:

adding even numbers:

$$2 = 2$$

$$2 + 4 = 6$$

$$2 + 4 + 6 = 12$$

$$2 + 4 + 6 + 8 = 20$$

$$2 + 4 + 6 + 8 + 10 = 30$$

$$2 + 4 + 6 + 8 + 10 + 12 = 42$$

$$2 + 4 + 6 + 8 + 10 + 12 + 14 = 56$$

 $n^2 - n$ starting at 2

$$2^2 - 2 = 2$$

$$3^2 - 3 = 6$$

$$4^2 - 4 = 12$$

$$5^2 - 5 = 20$$

$$6^2 - 6 = 30$$

$$7^2 - 7 = 42$$

$$8^2 - 8 = 56$$