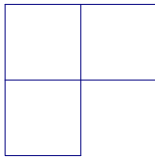


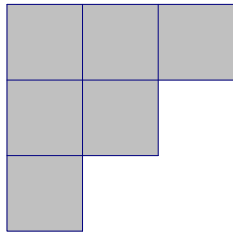
Here are the first 5 triangular numbers:



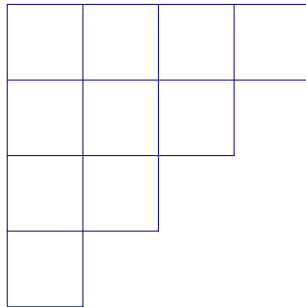
1



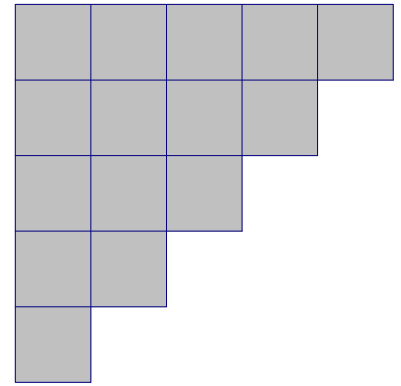
3



6

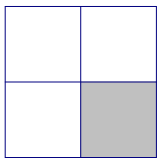


10



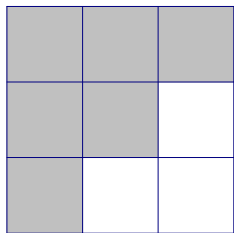
15

Note how successive triangular numbers can be added to form perfect squares:



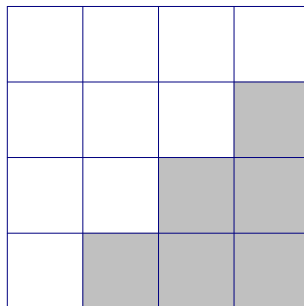
$$1+3=4=2^2$$

$$(3-1)^2 = 1+3$$



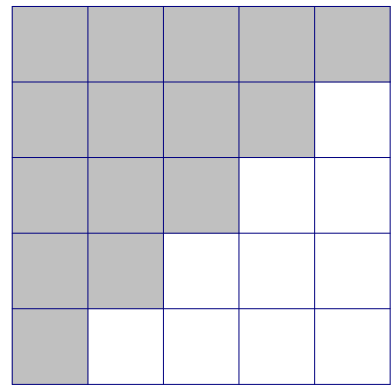
$$3+6=9=3^2$$

$$(6-3)^2 = 3+6$$



$$6+10=16=4^2$$

$$(10-6)^2 = 6+10$$



$$10+15=25=5^2$$

$$(15-10)^2 = 10+15$$