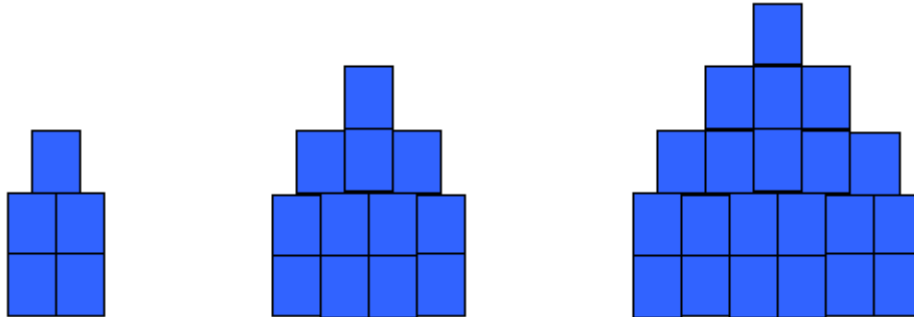


Building Patterns Incrementally Copymaster 5

The architect got really carried away with this sequence of buildings. But try to answer the questions anyway.



*How many blue squares do we need for the first building? The second? The third?
How many blue squares will we need for the sixth building? The eighth?
What is the recurrence rule for the number pattern for the blue squares? (How does it change as we go from building to building?)
What is the number of the building if we have to use exactly 77 blue squares to make it?
Which of these numbers are **not** a number of squares for one of these buildings: 140, 141, 142, 143?
What is the largest number of squares less than 130 in this pattern?
Which two buildings have 200 squares between them? (Is there more than one answer for this question?)
What is the general rule for this pattern? That is, given the number of the building, can you make up a rule that gives the number of the squares?
Can you see any more patterns here?*