

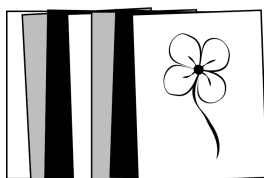


Problem of the Week

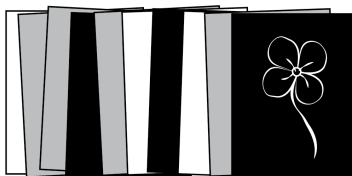
Problem C

Selling Sketches

Elouise sketches pictures and sells them in the park during a summer festival. She uses three colours of paper: white, grey, and black. First she sketches on white paper and puts it on the table for display. Then she sketches on grey paper, and then she sketches on black paper. After she has finished a sketch, she places it on top of the display pile. She continues in this pattern of white, grey, black, so that after completing seven sketches, her display pile would be as shown.



Elouise starts the festival with nothing in her display pile and continues sketching and adding pictures to the display pile throughout the festival. If someone wants to buy one of her sketches, they can only buy the sketch that is currently on the top of the pile. At the end of the festival, Elouise notes that she has sketched more pictures than she has sold, and the remaining sketches in her display pile are as shown.



What is the fewest number of sketches that Elouise could have sold during the festival?

This problem was inspired by a past [Beaver Computing Challenge \(BCC\)](#) problem.