Problem of the Week
Problem A
Making Jewelry

Lindsay has decided to make a necklace out of red, white, and yellow beads. She decides to have a repeated pattern in the necklace. She will have five red beads, followed by three white beads, followed by one yellow bead, followed by three white beads. Then the pattern will repeat. When she is done, she connects the ends of the string of beads to form a loop. The beads in her necklace will always form a complete pattern.

A) The beads Lindsay has are 5 mm wide. She wants to make a necklace that is at least 25 cm long. What is the smallest number of beads she needs to make the necklace where each pattern is complete?

B) Lindsay has 44 beads of each colour. What is the longest necklace she can make where each pattern is complete?