

Pencil Packaging

This is a moderately complex packaging task requiring inserting skills.



Materials

- 144 pencils (A)
- 144 erasers (B)
- 30 plastic tubes (C)
- 60 plastic caps (D)
- 1 jig (E)
- 2 small single-compartment bins
- 1 large red storage bin with divider
- 1 small red storage bin



CAUTION: The pencils are very sharp. Before the first use, dull the pencils by drawing circles on durable paper.

Setup

Place the 2 small single-compartment bins containing 90 pencils and 90 erasers on the table to the left. Place the divided storage bin containing the tubes and caps in the center and the empty small red storage bin to the right.

Procedure

- Take one pencil and one eraser. Insert the eraser onto the blunt end of the pencil. Place the pencil on the table.
- Repeat the above step with 2 more pencils and erasers.
- Take one tube and one cap from the large red storage bin. Attach the cap on one end of the tube.
- Hold the tube with the capped end facing down. Pick up one pencil and insert it into the tube, pointed end first. Repeat with the other two pencils.
- Take one cap from the red storage bin and attach it to the open end of the tube, taking care not to spill the pencils.
- Place the assembled tube in the small red storage bin.
- Repeat the previous steps for the remaining 29 tubes.

Note

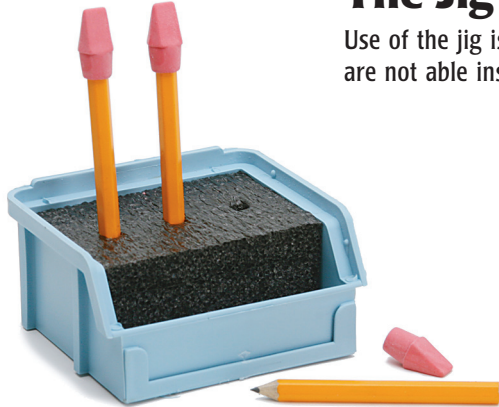
Using a twisting motion when inserting the erasers on the pencils and attaching the caps to the plastic tubes may make insertion easier.

Norms:

Per unit – 22 seconds
Per task (30 units) – 11 minutes

Quality Criteria

Erasers must be inserted straight and snugly on the blunt pencil end. Pencils in the tubes must all face the same direction. Tube caps must be attached straight and snugly.



The Jig

Use of the jig is not a part of the standard task, but it may be useful to workers who are not able insert the eraser on the pencil without it.

Pencil Packaging Disassembly

Setup

Arrange the materials as in the assembly task.

Procedure

- Remove one assembled tube from the small red storage bin.
- Remove one cap from the tube and place it in the right compartment of the large red storage bin. Dump the pencils onto the table.
- Remove the other cap from the tube and place it in the right compartment of the large red storage bin.
- Place the tube in the left compartment of the large red storage bin.
- Take a pencil from the table and remove the eraser. Place it in the second small single-compartment bin. Place the pencil in the first single-compartment bin.
- Repeat the previous step with the other 2 pencils.
- Repeat all the previous steps with the remaining tubes.



A completed unit

Norms:

Per unit – 9 seconds
Per task (30 units) –
4 minutes, 30 seconds

Quality Criteria

All tubes must be completely disassembled, with all parts in the correct storage bins and compartments.