

1 Collection and Representation of Data

1. a) $5C3 = 10$

b) $\{1, 2, 4\}, \{1, 2, 8\}, \{1, 2, 9\}, \{1, 4, 8\}, \{1, 4, 9\},$
 $\{1, 8, 9\}, \{2, 4, 8\}, \{2, 4, 9\}, \{2, 8, 9\}, \{4, 8, 9\}$

2. Select a simple random sample of 20 machines.
The selected machines will be Group 1 and the unselected machines will be Group 2.

3. regular: $\frac{10650}{10650 + 4350} = \frac{x}{600} \quad x = 426$

diet: $600 - 426 = 174$

426 cans of regular and 174 cans of diet pop

4. a) 1-in-50 systematic sample

b) simple random sample

c) stratified random sample

d) cluster sample

