

Answers to Problems

1.

| Model | Monthly Demand | Daily Demand |
|-------|----------------|---------------|
| X | 400 | $400/20 = 20$ |
| Y | 200 | $200/20 = 10$ |
| Z | 100 | $100/20 = 5$ |

Sequence to be repeated five times each day will include: four model X (20/5); two model Y (10/5); and one model Z (5/5). One model sequence is:

X - Y - X - Z - X - Y - X.

3. A total of 35 units must be produced during the 480 minutes each day.
cycle time = $480/35 = 13.71$ minutes

Average cycle time for each model:

| Model | Daily Demand | Cycle Time |
|-------|--------------|--------------------|
| X | 20 | $480/20 = 24$ min. |
| Y | 10 | $480/10 = 48$ min. |
| Z | 5 | $480/5 = 96$ min. |