Use Patterns to Multiply

Use patterns to solve.

1. A post office is open 7 hours each day for 300 days a year. How many hours is the post office open during a year?

\[
7 \times 3 = 21 \\
7 \times 30 = 210 \\
7 \times 300 = 2100
\]

2. A mail carrier delivers 400 letters each day for 6 days. How many letters does he deliver in all?

\[
6 \times 400 = 6 \times 4 \times 100 = 2400
\]

3. The post office sells books of 20 stamps and rolls of 100 stamps. If a customer buys 5 books of stamps and 4 rolls of stamps, how many stamps does the customer buy altogether?

5 \times 20 = 100 \\
4 \times 100 = 400 \\
\text{Total} = 500

4. A sheet of 3-cent stamps is set in an array of 5 rows with 10 stamps in each row. How many stamps are on 300 sheets?

5 \times 10 = 50 \\
300 \times 50 = 15000

5. Stamp collectors put their extra stamps in special envelopes. You can buy a small pack of 100 envelopes for $3 per pack or a large pack of 1,000 envelopes for $20 per pack. What is the largest number of envelopes a stamp collector can buy with $98?

\[\text{Small packs} = \frac{98}{3} \approx 32 \text{ packs} \\
\text{Large packs} = \frac{98}{20} = 4.9 \text{ packs (not possible)}
\]

6. A stamp dealer sells packages of assorted stamps. There are 200, 300, 400, 600, or 800 stamps in a package. A customer buys 3 of one package and 2 of another package and gets a total of 3,000 stamps. Which sets of stamps did the customer buy?

\[\text{Possible sets} = \{400, 800\} \text{ and } \{600, 600\}
\]