Name _____

**Problem-Solving Strategy**

# Find a Pattern

**R 1-8**

Business at the new CardMart has been growing steadily. The table shows the number of customers for each of the first 6 months.

| CardMart Customers: 2000 | | | | | | |
|---|---|---|---|---|---|---|
| **Jan** | **Feb** | **Mar** | **Apr** | **May** | **June** | **July** |
| 200 | 220 | 260 | 320 | 400 | 500 | ? |

If the trends in growth continue, about how many customers can CardMart expect during July?

**Understand** You need to predict the number of customers for July. You have the customer information for the preceding 6 months.

**Plan** Look for a pattern in the data from the first 6 months. Then extend this pattern.

Look at how the number of customers increases each month.

**Solve** Write down the increases from month to month.

200 220 260 320 400 500 ?

\ / \ / \ / \ / \ / \ /

+ 20 + 40 + _____ + _____ + _____ + _____

The next increase in the pattern should be _____.

So, CardMart can expect about _____ customers in July.

**Look Back** The increase for each month is _____ more than the increase for the previous month. The increase from May to June is 100, so the increase from June to July should be

100 + _____, or _____.

**1.** Extend the pattern for the next three months. First, complete the bottom row of increases. Then, write the number of customers CardMart can expect through October.

| Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct |
|---|---|---|---|---|---|---|---|---|---|
| 200 | 220 | 260 | 320 | 400 | 500 | | | | |

Increases:

+20 +40 + _____ + _____ + _____ + _____ + _____ + _____ + _____