NAME _____ DATE _____ PERIOD _____

Problem-Solving Investigation: Make a Table

Example

Kylee is training for the marathon she will run in a few months. She will begin by running 3 miles the first day, 5 miles the next day, and 7 miles the next day.

Make a table to find the number of miles Kylee will run on her tenth day of training.

Understand Kylee will run 3 miles the first day, 5 miles the next day, and 7 miles the next day. You need to find the number of miles she will run on day 10 of training.

Plan Make a table and find a pattern. Then extend the pattern to find the solution.

Solve The first three days, Kylee will run 3 miles, 5 miles, and 7 miles. Extend the pattern.

Day	1	2	3	4	5	6	7	8	9	10
Miles	3	5	7	9	11	13	15	17	19	21

+2 +2 +2 +2 +2 +2 +2 +2 +2

Kylee will run 21 miles on day 10 of her training.

Check Use counters or cubes to model the daily pattern of miles ran. Count the number of objects used to represent the number of miles ran on day 10.

Exercises

1. **RUNNING** Suppose Kylee's friend Derrick is also training for the marathon. On his first four days of training, he runs 1 mile, 1 mile, 2 miles, and 2 miles. How many miles will Derrick run on day 10 of his training?

2. **RUNNING** If Kylee and Derrick continue training in this pattern, how many days will they train before each one is running at least 26 miles?

DAY	1	2	3	4	5	6	7	8	9	10
MILES	1	1	2	2	3	3	4	4	5	5

DAYS TO RUN 26 MILES

KYLEE

DERRICK

DAY	10	20	30	40	50	51
MILES	5	10	15	20	25	26

Homework Practice *Problem-Solving Investigation: Make a Table*

Use the *make a table* strategy to solve Exercises 1–4.

1. **READING** Shayna is reading a new novel. The last three nights she has read 25, 31, and 37 pages. If she continues reading in this pattern, how many pages of the book can she expect to have read after the sixth night?

2. **TEMPERATURE** The table shows the daily high temperature for a city for the past four days. If the patttern continues, what would you expect the high temperature to be for the next two days?

Day	Temperature (°F)
Sun.	72
Mon.	73
Tues.	75
Wed.	78

3. **NUMBERS** What are the next three numbers in the pattern below?
138, 113, 88, ____, ____, ____

4. **TYPING** Parker is taking a typing class. His scores on his timed typing tests are 18, 20, and 24 words per minute. Parker has two more timed tests to take in the course. If the pattern continues, how many words per minute can Parker expect to be able to type at the end of the course?

Use any strategy to solve Exercises 5–8.

5. **DANCE** The cheerleaders are practicing a dance routine in which all 36 of them need to be in a triangular formation. There will be two more cheerleaders in each row than the previous row. How many rows will be in the formation?

6. **GEOMETRY** Draw the next two figures in the pattern shown below.

7. **PRECIPITATION** The table shows the average monthly precipitation for Seattle, Washington. About how much precipitation can Seattle expect to receive during March through August? For the whole year?

Average Monthly Precipitation for Seattle, Washington (in.)					
Jan.	5.1	May	1.7	Sept.	1.6
Feb.	3.7	June	1.4	Oct.	3.0
Mar.	3.3	July	0.7	Nov.	5.1
Apr.	2.2	Aug.	0.9	Dec.	5.4

8. **CAKE** Tiffany is cutting a rectangular cake for a party. She needs 30 equal-sized pieces to serve all the guests. How many cuts will Tiffany need to make in the cake?