

LESSON
1-1 **Problem Solving**
Numbers and Patterns

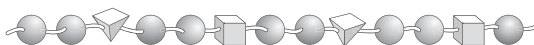
Write the correct answer.

1. Trains leave Peapack station at 7:00 A.M., 7:16 A.M., 7:32 A.M., and 7:48 A.M. Assume that the pattern continues. If you arrive at the station at 8:30 A.M., at what time will the next scheduled train leave?

3. A water tank holding 100 gallons begins to leak at 6:00 P.M. At 7:00 P.M. the tank has 94 gallons. At 8:00 P.M. the tank has 88 gallons. At 9:00 P.M. the tank has 82 gallons. If the pattern continues, how many gallons will be left at 11:00 P.M.?

2. Suppose the pattern 8, 16, 24, 32, ... is continued forever. Will the number 174 appear in the pattern? Why or why not?

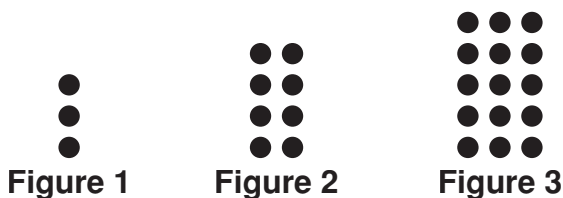
4. Awilda is making a necklace with sphere, pyramid, and cube shaped beads. If she continues the pattern below, what are the shapes of the next five beads?



Choose the letter for the best answer.

5. The drawing at the right shows the first three figures in a pattern. If the pattern continues, how many circles will be in the fifth figure of the pattern?

- A 20 C 27
B 24 D 35



6. The table shows the number of handshakes if each person in a group shakes each other's hand once. How many handshakes will there be if there are 9 people?

- F 20 H 36
G 30 J 45

People	2	3	4	5	6
Number of Handshakes	1	3	6	10	15

7. Melissa wrote the following number pattern: 71, 66, 59, 50, 39, ... What is the next number in the pattern?

- A 26 C 30
B 27 D 35

8. By July 1, Bob saved \$120. By July 8, he saved \$185. By July 15, Bob saved \$250. If the pattern continues, how much will he have saved by July 29?

- F \$315 H \$390
G \$380 J \$415