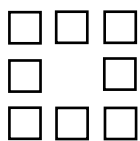


Question 13 is an open-response question.

- BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.
- Show all your work (drawings, tables, or computations).
- If you do the work in your head, explain in writing how you did the work.

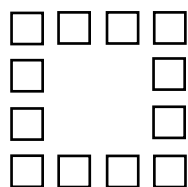
**13** The first four figures in a pattern are shown below.

**Figure 1**



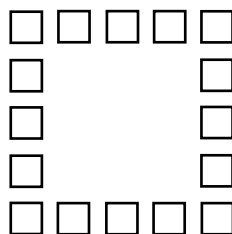
8 tiles

**Figure 2**



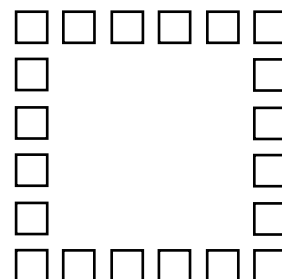
12 tiles

**Figure 3**



16 tiles

**Figure 4**

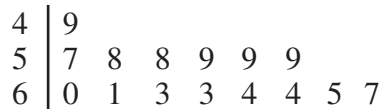


20 tiles

- Based on the pattern above, draw Figure 5.
- How many tiles will be in Figure 7?
- Using words or symbols, write an expression for determining the number of tiles in Figure  $n$ .
- If the pattern continues, which figure will contain exactly 160 tiles? Show or explain your work.

- 14 Coach Chin recorded the heights of the students in his sixth-grade gym class on the stem-and-leaf plot below.

Height (in inches)

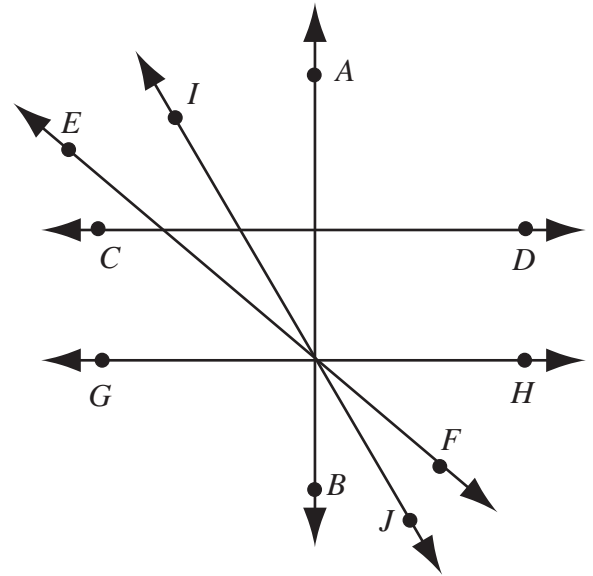


|          |
|----------|
| KEY      |
| 6 2 = 62 |

Which of the following is the most common height in Coach Chin's class?

- A. 3 inches
  - B. 9 inches
  - C. 59 inches
  - D. 60 inches
- 15 The distance between Humphrey's house and the local amusement park is 20 miles. If he is using a scale of 1 inch to 10 miles to draw a map, how many inches on the map should be between his house and the amusement park?
- A.  $\frac{1}{2}$  inch
  - B. 2 inches
  - C. 10 inches
  - D. 30 inches

Use the figure below to answer question 16.



- 16 Which of the following lines appears to be perpendicular to  $\overleftrightarrow{CD}$ ?
- A.  $\overleftrightarrow{AB}$
  - B.  $\overleftrightarrow{EF}$
  - C.  $\overleftrightarrow{GH}$
  - D.  $\overleftrightarrow{IJ}$