

## Mathematics, Grade 6

### Session 1, Open-Response Question



- 17 A group of students measured their heights for a class project. The results are shown in the table below.

**Students' Heights**

Student	Height in Centimeters
Victor	132
Tim	142
Jackie	147
Jani	141
Bill	153
Ellen	147
Maureen	135

- a. What is the mode of the students' heights?
- b. Copy the stem-and-leaf plot below into your Student Answer Booklet. Correctly complete the stem-and-leaf plot by entering the remaining heights. Victor's height is already shown.

**Heights (in centimeters)**

15		
14		
13		2

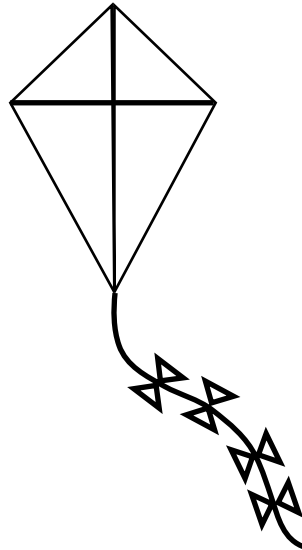
- c. What is the median height of the students? Show or explain your work.
- d. Later, two more students joined the group; their heights were added to the table. This did **not** change the median height of all nine students. What must have been correct about the heights of these two students? Show or explain your work.

*Reporting Category for Item 17: Data Analysis, Statistics, and Probability*

Session 2, Multiple-Choice Questions



- 18 Lily designed the kite below for an experiment.



Which of the following correctly describes the shape of Lily's kite?

- A. triangle
- B. rectangle
- C. parallelogram
- D. quadrilateral

Reporting Category for Item 18: **Geometry**

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Use the table below to answer question 19.

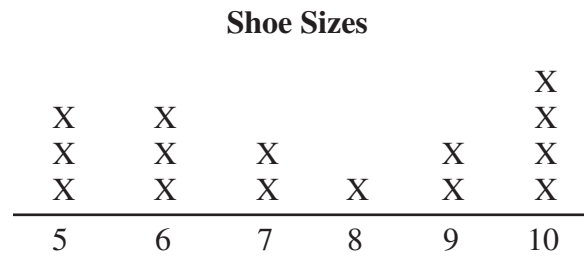
$x$	$y$
5	25
10	50
12	?
17	85

- 19 According to the pattern shown, what is the value of  $y$  when  $x$  is 12?
- A. 55
  - B. 60
  - C. 75
  - D. 100

Reporting Category for Item 19: *Patterns, Relations, and Algebra*

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- 20 Han surveyed 15 of her classmates to find their shoe sizes. She displayed the data in the line plot below.



What is the median shoe size?

- A. 5
- B. 6
- C. 7
- D. 10

*Reporting Category for Item 20: Data Analysis, Statistics, and Probability*