

## Mathematics, Grade 8

- 25 Mr. Gonzales is planning to drive 135 miles from West Stockbridge to Boston on the Mass Pike. He estimates that he will average 55 miles per hour. What is the latest time he can leave West Stockbridge to arrive in Boston at 11:00 A.M.?
- A. 9:30 A.M.
  - B. 8:30 A.M.
  - C. 7:30 A.M.
  - D. 6:30 A.M.

*Reporting Category for Item 25: Measurement*

- 26 Ms. Jordan bought a box of 32 granola bars. Every day each of her three children ate one granola bar for lunch. Now there are only 11 bars left. Which equation can be used to find the number of days,  $n$ , that the children ate the bars for lunch?
- A.  $32 = \frac{n}{3} - 11$
  - B.  $32 = 3n - 11$
  - C.  $32 = \frac{n}{3} + 11$
  - D.  $32 = 3n + 11$

*Reporting Category for Item 26: Patterns, Relations, and Algebra*

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Use the equation below to answer question 27.

$$-3xy = 45$$

- 27 Which of the following statements is true?
- A. Only  $x$  is negative.
  - B. Only  $y$  is negative.
  - C. Both  $x$  and  $y$  are negative.
  - D. Either  $x$  or  $y$  is negative.

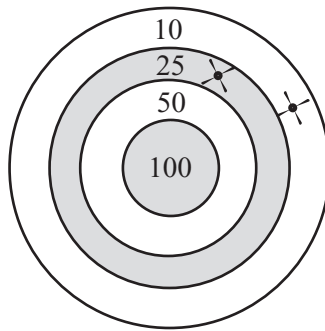
Reporting Category for Item 27: **Number Sense and Operations**

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### Session 2, Open-Response Questions



- 28 Esther shot two arrows at a target. The picture below shows where the arrows landed.



Esther calculated her score by adding the number of points for each ring in which an arrow landed. For the two arrows above, her score was 35 points ( $25 + 10$ ).

- In your Student Answer Booklet, make a list of all the possible scores Esther could have gotten by shooting two arrows that hit the target.
- Is it possible for Esther to score a total of 235 points using **only** 5 arrows? Show your work or explain your answer.
- What is the **fewest** number of arrows required for Esther to score a total of 240 points? Show your work or explain your answer.

*Reporting Category for Item 28: Number Sense and Operations*