Name

13-9A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 934–937 for objectives.

USES Objective I

	10th	11th
Mean	44.1	49.3
S.D.	11.1	11.3

1. The PSAT is a standardized test taken by high school sophomores and juniors. The mean and standard deviation of scores for one particular year are shown in the table at the right.

   a. The top 2.3% of juniors are 2 standard deviations or more above the mean. What scores did they get? _____

   b. What was the range of scores for the middle 68.2% of sophomores? _____

2. On a particular section of interstate, the traffic is moving with a mean speed of 69 miles per hour and a standard deviation of 2 miles per hour.

   a. If the speed limit is 65 mph, about what percentage of the traffic is moving faster than the speed limit? _____

   b. A police officer is targeting the fastest 16% of cars. How fast are these cars traveling? _____

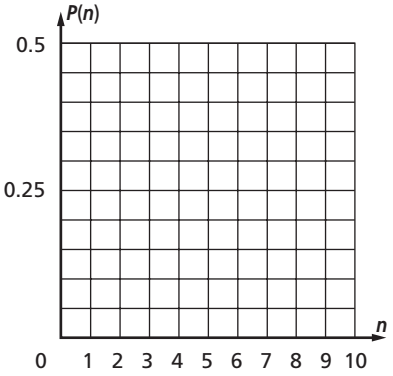
REPRESENTATIONS Objective K

3. Consider an experiment where a fair coin is flipped eight times.

   a. Find the probability $P(n)$ of getting n heads for $n = 0, 1, 2, ..., 8$. Complete the table below.

n	0	1	2	3	4	5	6	7	8
$P(n)$									

   b. Graph the function P at the right.

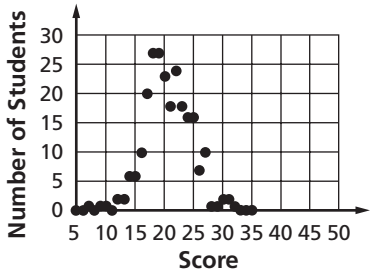


   c. Explain why P is a *binomial distribution*.

_____

_____

4. The scores of 242 students on a standardized test are shown in the graph at the right.



   a. Sketch a normal curve through the data.

   b. Use your curve to approximate the mean.

_____