

Name _____

13-1A Lesson Master**Questions on SPUR Objectives**

See Student Edition pages 934–937 for objectives.

SKILLS Objective A

In 1–3, evaluate the arithmetic series.

- $8 + 10 + 12 + \dots + 24$ _____
- the sum of the first 100 odd numbers _____
- the sum of the first ten terms of the sequence

$$\begin{cases} a_1 = 100 \\ a_n = a_{n-1} - 6 \text{ for integers } n \geq 2 \end{cases}$$

SKILLS Objective C

Fill in the Blanks In 4 and 5, write out the terms of the series and find the sum.

- $\sum_{i=1}^5 (2i^2) =$ _____.
- $\sum_{n=10}^{15} (5n + 2) =$ _____.

In 6 and 7, write the arithmetic series in summation notation.

- $5 + 10 + 15 + 20 + 25$ _____
- $12 + 10 + 8 + \dots + -4 + -6$ _____

Fill in the Blanks In 8 and 9, find the sum.

- $\sum_{i=5}^8 \frac{i}{i+1} =$ _____.
- $\sum_{i=1}^{50} (3i - 2) =$ _____.

USES Objective G

- The associates at a large corporate law firm agree to a contract. In the first year, their salary will be \$250,000. In each successive year, they will make \$25,000 more than the year before. How much will an associate earn over the five-year life of the contract? _____
- Tanya is a make-up artist for a reality television series. The series starts with 24 contestants. Each week, two contestants are eliminated until the final week, when only two contestants remain. How many times does Tanya apply make-up during the production of the series? _____