

Name \_\_\_\_\_

Sr.# \_\_\_\_\_

**43–48** Determine whether the series is convergent or divergent by expressing  $s_n$  as a telescoping sum (as in Example 8). If it is convergent, find its sum.

44. 
$$\sum_{n=1}^{\infty} \ln \frac{n}{n+1}$$

**3-32** Determine whether the series converges or diverges.

**24.** 
$$\sum_{n=1}^{\infty} \frac{n + 3^n}{n + 2^n}$$