Name

11-2A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 792–795 for objectives.

SKILLS Objective A

In 1–4, expand by hand and write in standard form. Check with a CAS.

1. $(a + 1)(a^2 - 3a + 4)$

2. $(t^2 + 5)(t^3 - 3t + 1)$

3. $(a + 2b + 3)(3a + 2b + 1)$

4. $(x - 1)(x + 3)(x - 5)$

In 5 and 6, find the given terms in the standard-form expansion of each polynomial without actually multiplying the polynomials. Check by expanding with a CAS.

5. $(a - 1)(2a - 3)(5a - 7)$ First term: _____ Last term: _____

6. $(2x + 5)(x^2 + 3)(3x^4 + 2)$ First term: _____ Term with x^3: _____

PROPERTIES Objective E

In 7 and 8, determine a. whether the polynomial is a *monomial*, *binomial*, *trinomial*, or *none of these*, and b. the degree of the polynomial.

7. $3x^2 - 5$

a. _____ b. _____

8. $\frac{1}{2}t^4 - 2t^2 + 3$

a. _____ b. _____

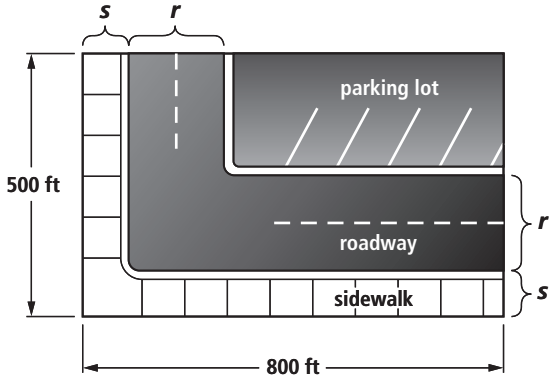
In 9 and 10, give examples of polynomials that meet the description.

9. a third-degree monomial _____

10. a fifth-degree trinomial _____

USES Objective I

11. The designers of a new shopping center plan a sidewalk, a roadway, and a parking lot in a 500-foot by 800-foot area as shown at the right. Find a polynomial for the area of the parking lot



a. in factored form. _____

b. in standard form. _____

12. The height of a cylinder is 3 cm greater than the radius. Give the volume in terms of r, in standard form. Use the formula for the volume of a cylinder: $V = \pi r^2 h$. _____