

Name

2-6A

Lesson Master

Questions on SPUR Objectives  
See pages 125–127 for objectives.

REPRESENTATIONS

Objective J

In 1–6, use a CAS or graphing utility to determine whether the expressions are equivalent.

1.  $5(2x + 6)$  and  $3(3x - 2(x + 1)) + 6(x + 6)$
2.  $(x + 1)(x - 1)(x - 1)$  and  $x^3 + x^2 - x - 1$
3.  $7 - (r - (3r - (5r + 4)))$  and  $3(r - 1)$
4.  $-k\left(\frac{5}{k} + k^2\right) + (k^3 + 18)$  and 13
5.  $a^2 + b - c - (a^2 - b + c)$  and 0
6.  $(x + 1)^3$  and  $x^3 + 1 + 3x(x + 1)$

In 7 and 8, write an expression equivalent to  $28rs + s^2$  using each property.

7. Commutative Property of Addition
8. Commutative Property of Multiplication
9. Use a CAS to verify that your expressions in 7 and 8 are equivalent.

In 10–12, create three equivalent expressions.

10.  $25k^3 - 5k^2$
11.  $3r^4 + 60rs + 15s$
12.  $16w^2$
13. Write a process you could use to convert the expression  $3x + 5y$  into the equivalent expression  $3(x - y) + 8y$ .