**19.** **INVESTMENTS** Kent invested $5000 in a retirement plan. He allocated *x* dollars of the money to a bond account that earns 4% interest per year and the rest to a traditional account that earns 5% interest per year.

**a.** Write an expression that represents the amount of money invested in the traditional account.

**c.** If Kent put $500 in the bond account, how much money does he have in his retirement plan after one year?

**b.** Write a polynomial model in simplest form for the total amount of money *T* Kent has invested after one year. (*Hint:* Each account has *A* + *IA* dollars, where *A* is the
original amount in the account and *I* is its interest rate.)

**18.** **NUMBER THEORY** Let *x* be an integer. What is the product of twice the integer added to three times the next consecutive integer?

**13.** 3(3*u* + 2) + 5 = 2(2*u* – 2)

**15.** 8(3*b* + 1) = 4(*b* + 3) – 9

**17.** *u*(*u* – 5) + 8*u* = *u*(*u* + 2) – 4

**12.** 5(2*t* – 1) + 3 = 3(3*t* + 2)

**14.** 4(8*n* + 3) – 5 = 2(6*n* + 8) + 1

**16.** *t*(*t* + 4) – 1 = *t*(*t* + 2) + 2

**6.** $-\frac{2}{3}$*n*2(–9*n*2 + 3*n* + 6)

**5.** $-\frac{1}{4}$*m*(8*m*2 + *m* – 7)

**Practice**

***Multiplying a Polynomial by a Monomial***

**Lesson 8-2**

*Glencoe Algebra 1*

Chapter 8

**15**

**Solve each equation.**

**11.** –3*g*(7*g* – 2) + 3( *g*2 + 2*g* + 1) – 3*g*(–5*g* + 3)

**10.** –2(3*m*3 + 5*m* + 6) + 3*m*(2*m*2 + 3*m* + 1)

**9.** 6*t*(2*t* – 3) – 5(2*t*2 + 9*t* – 3)

**8.** 5*w*(–7*w* + 3) + 2*w*(–2*w*2 + 19*w* + 2)

**7.** –2*ℓ*(3*ℓ* – 4) + 7*ℓ*

**Simplify each expression.**

**4.** –3*rt*(–2*t*2 + 3*r*)

**3.** 5*jk*(3*jk* + 2*k*)

**2.** 6*pq*(3*p*2 + 4*q*)

**1.** 2*h*(–7*h*2 – 4*h*)

**Find each product.**

**8-2**

NAME DATE PERIOD



