**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_**

**Multiplying Polynomials
Worksheet 494**

**Find each product.**

**1.** (*q* + 6)(*q* + 5) **2.** (*x* + 7)(*x* + 4) **3.** (*s* + 5)(*s* – 6)

**4.** (*n* – 4)(*n* – 6) **5.** (*a* – 5)(*a* – 8) **6.** (*w* – 6)(*w* – 9)

**7.** (4*c* + 6)(*c* – 4) **8.** (2*x* – 9)(2*x* + 4) **9.** (4*d* – 5)(2*d* – 3)

**10.** (4*b* + 3)(3*b* – 4) **11.** (4*m* + 2)(4*m* – 3) **12.** (5*c* – 5)(7*c* + 9)

**13.** (6*a* – 3)(7*a* – 4) **14.** (6*h* – 3)(4*h* – 2) **15.** (2*x* – 2)(5*x* – 4)

**16.** (3*a* – *b*)(2*a* – *b*) **17.** (4*g* + 3*h*)(2*g* + 3*h*) **18.** (4*x* + *y*)(4*x* + *y*)

**19.** (*m* + 5)($m^{2}$ + 4*m* – 8) **20.** (*t* + 3)($t^{2}$ + 4*t* + 7) **21.** (2*h* + 3)(2$h^{2}$ + 3*h* +4)

**22.** (3*d* + 3)(2$d^{2}$ + 5*d* – 2) **23.** (3*q* + 2)(9$q^{2}$ – 12*q* + 4) **24.** (3*r* + 2)(9$r^{2}$ + 6*r* + 4)

**25.** (3$c^{2}$ + 2*c* – 1)(2$c^{2}$ + *c* + 9) **26.** (2$l^{2}$ + *l* + 3)(4$l^{2}$ + 2*l* – 2) **27.** (2$x^{2}$ – 2*x* – 3)(2$x^{2}$ – 4*x* + 3)



**GEOMETRY Write an expression to represent the area of each figure.**

**29.** **30.**

**31. NUMBER THEORY** Let *x* be an even integer. What is the product of the next two consecutive even integers?

**32. GEOMETRY** The volume of a rectangular pyramid is one third the product of the area of its base and its height. Find the expression for the volume of a rectangular pyramid whose base has an area of 3$x^{2}$ + 12*x* + 9 square feet whose height is *x* + 3 feet.