

6-3 Multiplying Binomials

Find each product.

1) $4(5x - 3y)$

2) $3u^3(4u + 5v)$

3) $5xy(3x^2 - 4xy + 2y^2)$

4) $4v(u^2 - 5uv - 5v^2)$

5) $(k + 4)(5k - 2)$

6) $(5n + 2)(n + 5)$

7) $(2x - 2)(3x + 2)$

8) $(k + 2)(3k - 5)$

9) $(4x - 8y)(2x - 8y)$

10) $(-8x - 7y)(-6x - y)$

11) $(7k - 5)^2$

12) $(4n + 7)^2$

13) $(x + 5)^2$

14) $(7n + 8)^2$

Name each polynomial by degree and number of terms.

15) $4x + 2$

16) $-6b^3 + 2b^2$

17) 8

18) $6n^2$

Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.

19) $2x^{\frac{1}{3}} \cdot 2x$

20) $3n^{\frac{5}{3}} \cdot n^{\frac{3}{2}}$

Simplify. Your answer should contain only positive exponents.

21) $x^5 y^{-2} \cdot (-x^3)^{-3}$

22) $(y^{-2})^{-2} \cdot y^2$

23) A rectangle has a length of $2x - 3$ and a width of $x + 5$. Find the area of the rectangle in terms of x .

24) Find the area of a square with one side $x - 5$.