

8-4 Skills Practice**Polynomials**

State whether each expression is a polynomial. If the expression is a polynomial, identify it as a *monomial*, a *binomial*, or a *trinomial*.

1. $5mn + n^2$

2. $4by + 2b - by$

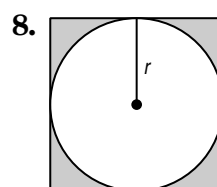
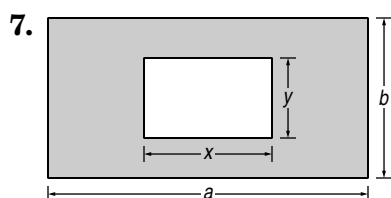
3. -32

4. $\frac{3x}{7}$

5. $5x^2 - 3x^{-4}$

6. $2c^2 + 8c + 9 - 3$

GEOMETRY Write a polynomial to represent the area of each shaded region.



Find the degree of each polynomial.

9. 12

10. $3r^4$

11. $b + 6$

12. $4a^3 - 2a$

13. $5abc - 2b^2 + 1$

14. $8x^5y^4 - 2x^8$

Arrange the terms of each polynomial so that the powers of x are in ascending order.

15. $3x + 1 + 2x^2$

16. $5x - 6 + 3x^2$

17. $9x^2 + 2 + x^3 + x$

18. $-3 + 3x^3 - x^2 + 4x$

19. $7r^5x + 21r^4 - r^2x^2 - 15x^3$

20. $3a^2x^4 + 14a^2 - 10x^3 + ax^2$

Arrange the terms of each polynomial so that the powers of x are in descending order.

21. $x^2 + 3x^3 + 27 - x$

22. $25 - x^3 + x$

23. $x - 3x^2 + 4 + 5x^3$

24. $x^2 + 64 - x + 7x^3$

25. $2cx + 32 - c^3x^2 + 6x^3$

26. $13 - x^3y^3 + x^2y^2 + x$