

Chapter 14 Test Review

If the expression is a polynomial, write YES beside it.

1. $5 + 3x^{-2}$
2. $\frac{4}{y} + y^2$
3. $\sqrt{2}x + \frac{1}{4}x + 1$
4. $100x^{50} + 5yx - 2y^{20}$

Indicate the degree of each expression and classify it as a monomial, binomial, trinomial, or polynomial.

5. $5x^2 + 14x - 27$
6. $a^2b^2 + ab$
7. $x^5 + 7y^3 - 10x^2 + 4xy + 1$

Evaluate each polynomial when $x = -2$ and $y = 5$

8. $x^2 + 2x + 1$
9. $10y + 3x$
10. $xy^2 + xy$

Add.

11. $9x^2 - 2x + 7x - x^2$
12. $(4x - 5a) + (a - x) + (2x - 6a)$
13. $(4x^2 - 2x) + (x^3 + 6x) + (1 - 2x) + (3x^3 + 2x^2)$

Subtract.

14. $(2x^2 - 7y) - (5x^2 + 2y)$

15. $(7x^2 - 8x) - (3x - 4)$

Multiply.

16. $-3(x + 2)$

17. $5y(8y + 7)$

18. $8x^2(4x^2 + 3x - 11)$

19. $(x + 2)(x + 7)$

20. $(x + 5)^2$

21. $(x + 6)(x - 8)$

22. $(2x - 9)(4x + 3)$