

Algebra 1B Homework Check (7-5)

(Please attach homework to this sheet and fill out the questions below.)

Pg. 479: 1-26. 86-89

Vocabulary Match each polynomial on the left with its classification on the right.

1. $2x^3 + 6$

a. quartic polynomial

2. $3x^3 + 4x^2 - 7$

b. quadratic polynomial

3. $5x^2 - 2x + 3x^4 - 6$

c. cubic trinomial

d. cubic binomial

Find the degree of each monomial.

4. 10^6

5. $-7xy^2$

6. $0.4n^8$

7. 2

Find the degree of each polynomial.

8. $x^2 - 2x + 1$

9. $0.75a^2b - 2a^3b^5$

10. $15y - 84y^3 + 100 - 3y^2$

11. $r^3 + r^2 - 5$

12. $a^3 + a^2 - 2a$

13. $3k^4 + k^3 - 2k^2 + k$

Write each polynomial in standard form. Then give the leading coefficient.

14. $-2b + 5 + b^2$

15. $9a^8 - 8a^9$

16. $5s^2 - 3s + 3 - s^7$

17. $2x + 3x^2 - 1$

18. $5g - 7 + g^2$

19. $3c^2 + 5c^4 + 5c^3 - 4$

Classify each polynomial according to its degree and number of terms.

20. $x^2 + 2x + 3$

21. $x - 7$

22. $8 + k + 5k^4$

23. $q^2 + 6 - q^3 + 3q^4$

24. $5k^2 + 7k^3$

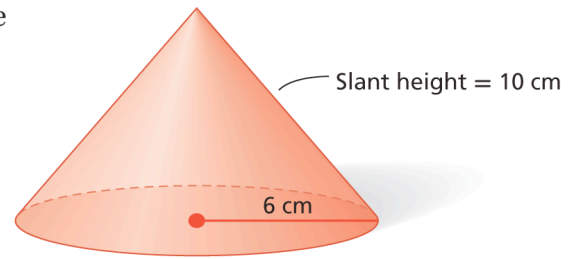
25. $2a^3 + 4a^2 - a^4$

Name: _____

Class: _____

Hour: _____

26. **Geometry** The surface area of a cone is approximated by the polynomial $3.14r^2 + 3.14r\ell$, where r is the radius and ℓ is the slant height. Find the approximate surface area of this cone.



Simplify. (Lesson 7-4)

86. $\frac{4^7}{4^4}$

87. $\frac{x^6y^4}{x^4y^9}$

88. $\left(\frac{2v^4}{vw^5}\right)^2$

89. $\left(\frac{2p}{p^3}\right)^{-4}$