## 9.1 Practice 2

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

1. 
$$7a^2b + 3b^2 - a^2b$$

2. 
$$\frac{1}{5}y^3 + y^2 - 9$$

3. 
$$6g^2h^3k$$

Find the degree of each polynomial.

**4.** 
$$x + 3x^4 - 21x^2 + x^3$$

5. 
$$3g^2h^3 + g^3h$$

**6.** 
$$-2x^2y + 3xy^3 + x^2$$

7. 
$$5n^3m - 2m^3 + n^2m^4 + n^2$$

8. 
$$a^3b^2c + 2a^5c + b^3c^2$$

9. 
$$10s^2t^2 + 4st^2 - 5s^3t^2$$

Arrange the terms of each polynomial in descending order.

**10.** 
$$8x^2 - 15 + 5x^5$$

**11.** 
$$10ab - 7b^2 + a^4 + 4a^3b^2$$
 **12.**  $-3x^3y + 8y^2 + xy^4$ 

12. 
$$-3x^3y + 8y^2 + xy^4$$

13. 
$$7xy - 12 + 3x^3y + x^2$$

14. 
$$13x^2 - 5 + 6x^3 + 2$$

**14.** 
$$13x^2 - 5 + 6x^3 + 2$$
 **15.**  $4x + 2x^5 - 6x^3 + 2$ 

**16.** 
$$g^2x - 3gx^3 + 7g^3 + 4x^2$$

17. 
$$-11x^2y^3 + 6y - 2xy + 2x^4$$

**18.** 
$$7a^2b^2 + 17 - a^3b^3 + 2ab$$

19. 
$$12rs^3 + 9r^6 + r^2s + 8s^6$$

**20.** Write a polynomial to represent the value of t ten-dollar bills, f fifty-dollar bills, and h one-hundred-dollar bills.

**21.** The height above the ground of a ball thrown upward with a velocity of 96 feet per second from a height of 6 feet is:  $6 + 96t - 16t^2$  feet, where *t* is time in seconds. According to this model, how high is the ball after 7 seconds?

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

write a polynomial to represent the area of each shaded region.







