

Answers for Lesson 9-1, pp. 497–498 Exercises

1. 1 2. 3 3. 0

4. 10 5. 4 6. 0

7. 4 8. 0

9. quadratic trinomial

10. linear binomial

11. cubic trinomial

12. not a polynomial

13. constant monomial

14. quadratic binomial

15. $-3x^2 + 4x$; quadratic binomial16. $4x + 9$; linear binomial17. $c^2 + 4c - 2$; quadratic trinomial18. $-2z^2 + 5z - 5$; quadratic trinomial19. $15y^8 - 7y^3 + y$; eighth degree trinomial20. $4q^4 + 3q^2 - 8q - 10$; fourth degree polynomial with 4 terms

21. $8m^2 + 15$

23. $8w^2 - 3w + 4$

25. $10g^4 + 11g$

27. $8y^4 + 7y^3 + 4y$

29. $b + 1$

31. $7n^4 + n^3$

33. $5w^2 - 4w + 10$

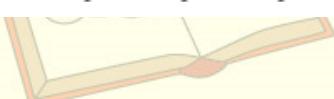
35. $18y^2 + 8y$

37. $-7z^3 + 6z^2 + 2z - 5$

39. $28c - 16$

43. $-x^4 + x^3 + 15x$

49. $5x + 18$



Warm Up

Simplify then state Degree (0,1,2,3 etc.) and Classify with both names
(ex: linear binomial)

1) $(2x^2 + 5x - 7) + (x^2 - 2x + 9)$

2) $(8x^3 + 6) - (10x^3 - 3)$



Section 9.2

Multiplying and Factoring

Use the distributive property to multiply

Remember the multiplication rule for powers



$$2(x + 5)$$

$$2x + 10$$

$$3x(x + 10)$$

$$3x^2 + 30x$$



$$\begin{aligned} & x^3(x^2 - 2x + 1) \\ & x^5 - 2x^4 + x^3 \\ & -2x^2(3x^4 + 8x - 9) \\ & -6x^6 - 16x^3 + 18x^2 \\ & -4x^6(10x^3 + 3x^2 - 7) \end{aligned}$$



Find the GCF of 1) 15 and 21 2) 48 and 36

$$15: 1, 3, 5, 15$$

$$21: 1, 3, 7, 21$$

Find the GCF of the terms of each polynomial.

1) $15w + 21$

2) $6a^2 + 8a$

3) $36v = 24$

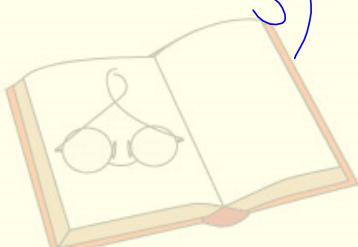
GCF: 3

GCF: 2a

3) $4x^3 + 8x^2 + 1x$

GCF: x

$$\times (4x^2 + 8x + 1)$$



Factor each polynomial.

That means find the GCF of the terms and "take it out". Then write what is left over in parenthesis.

$$1) \frac{6x}{2} - \frac{4}{2}$$

$$GCF: 2 \quad 2(3x - 2)$$

$$GCF: 2$$

$$2) \frac{2v^2}{2v} + \frac{4v}{2v}$$

$$GCF: 2v \quad 2v(v + 2)$$

$$GCF: 2v$$

$$3) 10x^3 - 25x^2 + 20$$



Simplify. Write in standard form
and classify.

$$4t(3t^2 - 4t) - t(7t)$$



Factor.

$$9m^{12} - 36m^7 + 81m^5$$



Homework:

p. 501 (1 - 25 odd, 27 - 32 odd, 34 - 39 odd)

