

5.1 – 5.4 Quiz Review CYU

Use when you get it right all by yourself
S Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
G Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
N Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Product Rule	1, 2		
Power Rule	11, 12, 15		
Power of a Product Rule	16	20	
Power of a Quotient Rule			
Quotient Rule	9	10	
Zero Exponent			
FOILing Method to Multiply	5, 6	13, 14	22, 30, 31
Distribution Method to Multiply	28		26, 27, 32
Punnett Square Method to Multiply	Any Trinomial	Multiplied to	Any trinomial
Degree of an Expression	23 – 25, 28, 29	18	19, 22, 26, 27, 30, 31,
Adding & Subtracting Polynomial Terms	7, 8, 23 – 25, 29	17, 18	19, 21, 26, 27
Standard Form	23 – 25, 28, 29	18	19, 22, 26, 27, 30, 31

Perform the indicated operations and simplify. Show all work to earn full credit. Box your final answer.

1. $(5x^2)(7x^3)$

$35x^5$

2. $(4y^2)(8y^7)$

$32y^9$

3. -4^2

-16

4. $(-4)^2$

16

5. $(x-5)(2x+1)$

$2x^2 - 9x - 5$

6. $(3x-2)(x+5)$

$3x^2 + 13x - 10$

7. $(x-5) + (2x+1)$

$3x - 4$

8. $(3x-2) + (x+5)$

$4x + 3$

9. $\frac{7x^9y^{12}}{x^3y^{10}}$

$7x^6y^2$

10. $\frac{20a^2b^8}{14a^2b^2}$

$\frac{10b^6}{7}$

11. $(12m^7n^6)^2$

$144m^{14}n^{12}$

12. $(4y^9z^{10})^3$

$64y^{27}z^{30}$

13. $3(4y-3)(4y+3)$

$48y^2 - 27$

14. $2(7x-1)(7x+1)$

$98x^2 - 2$

15. $(x^7y^5)^9$

$x^{63}y^{45}$

16. $(3^1x^9)^3$

$$27x^{27}$$

17. $(7x^2 - 2x + 3) - (5x^2 + 9)$

$$2x^2 - 2x - 6$$

Perform the indicated operations and simplify. Write your answer in standard form. State the degree. Classify the expression based on the number of terms. Show all work to earn full credit. Box your final answer.

18. $(10x^2 + 7x - 9) - (4x^2 - 6x + 2)$

$$6x^2 + 13x - 11$$

D: 2

trinomial

19. $0.7y^2 - 1.2 + 1.8y^2 - 6y + 1$

$$2.5y^2 - 6y - 0.2$$

D: 2

trinomial

20. $(5x^3)^3$

$$125x^9$$

D: 9

monomial

21. $7.8x^2 - 6.8x + 3.3 + 0.6x^2 - 9$

$$8.4x^2 - 6.8x - 5.7$$

D: 2

trinomial

22. $(x + 4y)^2$

$$x^2 + 8xy + 16y^2$$

D: 2

trinomial

23. $(y - 9z) + (y - 9z)$

$$2y - 18z$$

D: 1

binomial

24. $(x + 4y) + (x + 4y)$

$$2x + 8y$$

D: 1

binomial

25. $(y - 9z) + (y + 9z)$

$$2y$$

D: 1

monomial

26. $7x^2 - 6xy + 4(y^2 - xy)$

$$7x^2 - 10xy + 4y^2$$

D: 2

trinomial

27. $5a^2 - 3ab + 6(b^2 - a^2)$

$$-a^2 - 3ab + 6b^2$$

D: 2

trinomial

28. $(x - 3)(x^2 + 5x - 1)$

$$x^3 + 2x^2 - 16x + 3$$

D: 3

polynomial

29. $(x + 1)(x^2 - 3x - 2)$

$$x^3 - 2x^2 - 5x - 2$$

D: 3

polynomial

30. $(2x^3 - 7)(3x^2 + 10)$

$$6x^5 + 20x^3 - 21x^2 - 70$$

D: 5

polynomial

31. $(5x^3 - 1)(4x^4 + 5)$

$$20x^7 + 25x^3 - 4x^4 - 5$$

$$20x^7 - 4x^4 + 25x^3 - 5$$

D: 7

polynomial

32. $(2x - 7)(x^2 - 6x + 1)$

$$2x^3 - 19x^2 + 44x - 7$$

D: 3

polynomial