

Simplify. Leave no negative exponents in the answer.

1. $(2xy^2)(6xy^6)$

2. $(-3x^4y^5)(8xy^2)$

3. $(3x^6y^5)(7x^2y^4)$

4. $(8x^3y^4)^2$

5. $(7x^4y^3)^2$

6. $(2x^3y^2)^3$

7. $\frac{8x^4y^5}{28x^7y^5}$

8. $\frac{15x^2y^8}{35x^4y^4}$

9. $\frac{-6x^7y^5}{18x^{12}y^6}$

10. $(x^2y^3)^4(3xy^2)$

11. $(3xy^3)^2(4x^2y^2)$

12. $(5x^3y)^2(xy^2)^3$

13.
$$\frac{(3x^3y^3)^2}{12x^5y^5}$$

14.
$$\frac{4^{-2}x^1y^{-3}}{x^6y^8}$$

15.
$$\frac{-16x^{-4}y^{-2}}{24x^4y^{-2}}$$

16.
$$(3x^{-2}y)^3$$

17.
$$(3x^{-3}y^4)^{-2}$$

18.
$$(2x^3y^{-2})(7x^{-4}y^{-5})$$

19.
$$(4x^{-3}y^{-5})(2x^{-2}y^1)$$

20.
$$(x^{-2}y^{-1})(5^{-2}x^4y^3)$$

21.
$$\frac{1}{(x^3y^{-4})^{-2}}$$

Convert each number in Scientific Notation **into its decimal form**

22. 7.98×10^5

23. 7.6×10^4

24. 6.7×10^{-3}

25. 7.8×10^{-5}

Convert each decimal number **into Scientific notation.**

26. .000726

27. 86,000

28. .000045

29. 7,400,000

Simplify:

30. $-3\sqrt{196}$

31. $-2\sqrt{121}$

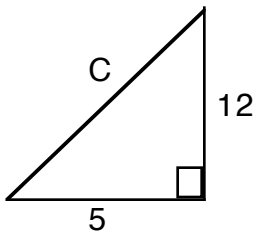
32. $32\sqrt{\frac{49}{64}}$

33. $2\sqrt{36} - 4\sqrt{25}$

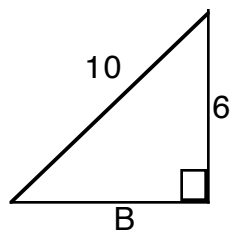
34. $5\sqrt{16} + 4\sqrt{81}$

35. $-\sqrt{9} - 2\sqrt{81}$

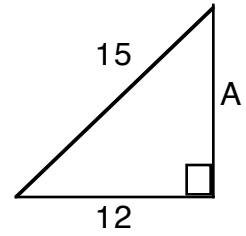
36. $C =$ _____



37. $B =$ _____



38. $A =$ _____



Multiply

39. $5x(2x^2 - 6x - 3)$

40. $-2x^2(4x^3 - 3x + 1)$

41. $-x(12x^3 - 3x^2 + x)$

42. $\frac{2x}{5}(10x - 15)$

43. $\frac{3x}{4}(12x^2 - 8x - 4)$

44. $(x - 7)(x - 4)$

45. $(5x - 7)(x - 1)$

46. $(4x - 3)(x + 2)$

47. $(6x - 5)(6x + 5)$

Chapter 11-12-13 Test Review Answers

1. $12x^2y^8$
2. $-24x^5y^7$
3. $21x^8y^9$
4. $64x^6y^8$
5. $49x^8y^6$
6. $8x^9y^6$
7. $\frac{2}{7x^3}$
8. $\frac{3y^4}{7x^2}$
9. $\frac{-1}{3x^5y}$
10. $3x^9y^{14}$
11. $36x^4y^8$
12. $25x^9y^8$
13. $\frac{3xy}{4}$
14. $\frac{1}{16x^5y^{11}}$
15. $\frac{-2}{3x^8}$
16. $\frac{27y^3}{x^6}$
17. $\frac{x^6}{9y^8}$
18. $\frac{14}{xy^7}$
19. $\frac{8}{x^5y^4}$
20. $\frac{x^2y^2}{25}$
21. $\frac{x^6}{y^8}$
22. 798,000
23. 76,000
24. .0067
25. .000078
26. 7.26×10^{-4}
27. 8.6×10^4
28. 4.5×10^{-5}
29. 7.4×10^6
30. -42
31. -22
32. 28
33. -8
34. 56
35. -21
36. C = 13
37. B = 8
38. A = 9
39. $10x^3 - 30x^2 - 15x$
40. $-8x^5 + 6x^3 - 2x^2$
41. $-12x^4 + 3x^3 - x^2$
42. $4x^2 - 6x$
43. $9x^3 - 6x^2 - 3x$
44. $x^2 - 11x + 28$
45. $5x^2 - 12x + 7$
46. $4x^2 + 5x - 6$
47. $36x^2 - 25$