

5-4 nth Roots

Simplify.

13. $\pm\sqrt{225a^{16}b^{36}}$

ANSWER:

$$\pm 15a^8b^{18}$$

15. $-\sqrt{16c^4d^2}$

ANSWER:

$$-4c^2|d|$$

17. $-\sqrt{400x^{32}y^{40}}$

ANSWER:

$$-20x^{16}y^{20}$$

19. $\sqrt{(x^2+6)^{16}}$

ANSWER:

$$(x^2+6)^8$$

21. $\sqrt[3]{8a^6b^{12}}$

ANSWER:

$$2a^2b^4$$

23. $\sqrt[3]{27b^{18}c^{12}}$

ANSWER:

$$3b^6c^4$$

27. $\sqrt[6]{x^{18}}$

ANSWER:

$$|x^3|$$

29. $\sqrt[3]{a^{12}}$

ANSWER:

$$a^4$$

31. $\sqrt[3]{(4x-7)^{24}}$

ANSWER:

$$(4x-7)^8$$

33. $\sqrt[4]{256(5x-2)^{12}}$

ANSWER:

$$4|(5x-2)^3|$$

35. $\sqrt[5]{32a^{15}b^{10}}$

ANSWER:

$$2a^3b^2$$

Simplify.

47. $\sqrt{196c^6d^4}$

ANSWER:

$$14|c^3|d^2$$

5-4 nth Roots

51. $\sqrt{400x^{16}y^6}$

ANSWER:

$$20x^8|y^3|$$