N-RN.A: Skills Practice Problems

5.5 #7-42

Evaluate each expression.

7. $\sqrt[3]{216} =$

$\sqrt[3]{216} = 6$

8. $\sqrt[3]{64} =$

9. $\sqrt[3]{-125} =$

10. $\sqrt[3]{-343} =$

11. $\sqrt[3]{729} =$

12. $\sqrt[3]{-8} =$

Evaluate each expression.

13. $\sqrt[5]{32} =$

$\sqrt[5]{32} = 2$

14. $\sqrt[4]{625} =$

15. $\sqrt[6]{729} =$

16. $\sqrt[5]{-1024} =$

17. $\sqrt{-128} =$

18. $\sqrt[5]{-243} =$

Write each radical as a power.

19. $\sqrt[4]{15}$

$\sqrt[4]{15} = 15^{\frac{1}{4}}$

20. $\sqrt[3]{5}$

21. $\sqrt[3]{31}$

22. $\sqrt[3]{x}$

23. $\sqrt[6]{y}$

24. $\sqrt{z}$

Write each power as a radical.

25. $12^{\frac{1}{3}}$

$12^{\frac{1}{3}} = \sqrt[3]{12}$

26. $7^{\frac{1}{5}}$

27. $18^{\frac{1}{4}}$

28. $a^{\frac{1}{2}}$

29. $d^{\frac{1}{5}}$

30. $c^{\frac{1}{6}}$

Write each expression in radical form.

31. $5^{\frac{2}{3}}$

$5^{\frac{2}{3}} = \sqrt[3]{5^2}$

32. $8^{\frac{2}{5}}$

33. $18^{\frac{3}{4}}$

34. $x^{\frac{3}{5}}$

35. $y^{\frac{4}{3}}$

36. $m^{\frac{5}{2}}$

Write each expression in rational exponent form.

37. $\sqrt[4]{6^3}$

$\sqrt[4]{6^3} = 6^{\frac{3}{4}}$

38. $\sqrt[5]{8^4}$

39. $\sqrt[3]{12^2}$

40. $\sqrt{n^5}$

41. $\sqrt[7]{p^7}$

42. $\sqrt[5]{m^3}$