

$$25. \sqrt{27} = \sqrt{3 \cdot 9} = \sqrt{3} \cdot \sqrt{9} = \sqrt{3} \cdot 3 = 3\sqrt{3}$$

$$26. \sqrt[4]{32} = \sqrt[4]{16} \cdot \sqrt[4]{2} = 2\sqrt[4]{2}$$

$$27. \sqrt{54} = \sqrt{9 \cdot 6} = \sqrt{9} \cdot \sqrt{6} = 3\sqrt{6}$$

$$28. \sqrt{9x} = \sqrt{9} \cdot \sqrt{x} = 3\sqrt{x}$$

$$29. \sqrt{\frac{a}{4}} = \frac{\sqrt{a}}{\sqrt{4}} = \frac{\sqrt{a}}{2}$$

$$30. \sqrt[4]{\frac{x^8}{y^{12}}} = \frac{\sqrt[4]{x^8}}{\sqrt[4]{y^{12}}} = \frac{x^{\frac{8}{4}}}{y^{\frac{12}{4}}} = \frac{x^2}{y^3}$$

$$31. \sqrt{\frac{25}{36}} = \frac{\sqrt{25}}{\sqrt{36}} = \frac{5}{6}$$

$$32. \frac{\sqrt{200}}{10} = \frac{\sqrt{100 \cdot 2}}{10} = \frac{\sqrt{100} \cdot \sqrt{2}}{10} = \frac{10\sqrt{2}}{10} = \sqrt{2}$$

$$33. \frac{\sqrt[3]{16}}{2} = \frac{\sqrt[3]{8 \cdot 2}}{2} = \frac{\sqrt[3]{8} \cdot \sqrt[3]{2}}{2} = \frac{2 \cdot \sqrt[3]{2}}{2} = \sqrt[3]{2}$$

$$34. \frac{\sqrt[3]{2000}}{\sqrt[3]{2}} = \sqrt[3]{\frac{2000}{2}} = \sqrt[3]{1000} = 10$$

תרגילים

פשטו את הביטויים הבאים:

$$35. \frac{\sqrt[3]{500}}{\sqrt[3]{4}} = \sqrt[3]{\frac{500}{4}} = \sqrt[3]{125} = 5$$

$$36. \frac{\sqrt{98}}{\sqrt{2}} = \sqrt{\frac{98}{2}} = \sqrt{49} = 7$$

$$37. \sqrt{12} \cdot \sqrt{3} = \sqrt{12 \cdot 3} = \sqrt{36} = 6$$

$$38. \frac{\sqrt{500}}{\sqrt{5}} = \sqrt{\frac{500}{5}} = \sqrt{100} = 10$$

$$39. \sqrt{5} \cdot \sqrt{3} \cdot \sqrt{15} = \sqrt{5 \cdot 3} \cdot \sqrt{15} = \sqrt{15} \cdot \sqrt{15} = \sqrt{15^2} = 15^{\frac{2}{2}} = 15$$

$$40. \frac{\sqrt{6} \cdot \sqrt{2}}{\sqrt{3}} = \frac{\sqrt{6 \cdot 2}}{\sqrt{3}} = \frac{\sqrt{12}}{\sqrt{3}} = \sqrt{\frac{12}{3}} = \sqrt{4} = 2$$

$$41. \sqrt{150} \cdot \frac{\sqrt{2}}{\sqrt{3}} = \frac{\sqrt{150 \cdot 2}}{\sqrt{3}} = \frac{\sqrt{300}}{\sqrt{3}} = \sqrt{\frac{300}{3}} = \sqrt{100} = 10$$

$$42. \frac{\sqrt[3]{x^{13}}}{\sqrt[3]{x^7}} = \sqrt[3]{\frac{x^{13}}{x^7}} = \sqrt[3]{x^{13-7}} = \sqrt[3]{x^6} = x^{\frac{6}{3}} = x^2$$

$$43. \sqrt[3]{2x} \cdot \sqrt[3]{4x^2} = \sqrt[3]{2x \cdot 4x^2} = \sqrt[3]{8x^3} = \sqrt[3]{8} \cdot \sqrt[3]{x^3} = 2 \cdot x = 2x$$

$$44. \frac{\sqrt[3]{27x} \cdot \sqrt[3]{x^2} \cdot \sqrt[3]{4x^4}}{\sqrt[3]{2x}} = \frac{\sqrt[3]{27x \cdot x^2 \cdot 4x^4}}{\sqrt[3]{2x}} = \frac{\sqrt[3]{108x^7}}{\sqrt[3]{2x}} = \sqrt[3]{\frac{108x^7}{2x}} = \sqrt[3]{54x^{7-1}} = \sqrt[3]{54x^6} = \sqrt[3]{54} \cdot \sqrt[3]{x^6} = \sqrt[3]{27 \cdot 2} \cdot x^2 = \sqrt[3]{27} \cdot \sqrt[3]{2} \cdot x^2 = 3\sqrt[3]{2} x^2$$

$$45. \frac{\sqrt{8} \cdot \sqrt{2} \cdot \sqrt{5}}{\sqrt{20}} = \frac{\sqrt{8 \cdot 2 \cdot 5}}{\sqrt{20}} = \frac{\sqrt{80}}{\sqrt{20}} = \sqrt{\frac{80}{20}} = \sqrt{4} = 2$$

$$46. \frac{\sqrt[3]{x} \cdot \sqrt[3]{x^{16}}}{\sqrt[3]{x^8}} = \frac{\sqrt[3]{x \cdot x^{16}}}{\sqrt[3]{x^8}} = \frac{\sqrt[3]{x^{16+1}}}{\sqrt[3]{x^8}} = \sqrt[3]{\frac{x^{17}}{x^8}} = \sqrt[3]{x^{17-8}} = \sqrt[3]{x^9} = x^{\frac{9}{3}} = x^3$$