

## 9.1 Worksheet Simplifying and Performing Operations with Fractions

Simplify each radical

1.  $\sqrt{200}$       2.  $\sqrt{98}$       3.  $\sqrt{75}$       4.  $5\sqrt{320}$       5.  $\sqrt{108b^4}$

6.  $3\sqrt{12x^2}$       7.  $\sqrt{20a^5b^4c^9}$       8.  $3\sqrt{6} \cdot \sqrt{6}$       9.  $2\sqrt{18} \cdot 7\sqrt{6}$

10.  $\sqrt{3n} \cdot \sqrt{24n}$       11.  $\sqrt{3x} \cdot \sqrt{51x^3}$       12.  $2\sqrt{6a} \cdot \sqrt{3a^4}$

13.  $\sqrt{\frac{21}{49}}$       14.  $\sqrt{\frac{120}{121}}$       15.  $\sqrt{\frac{243c^7d^3}{64e^8}}$       16.  $\sqrt{12} \cdot \sqrt{75}$

17.  $\sqrt{3}(\sqrt{72} - 3\sqrt{2})$       18.  $\sqrt{7y}(\sqrt{27y} + 5\sqrt{12y})$

19.  $(\sqrt{3} + \sqrt{48})(\sqrt{20} - \sqrt{5})$       20.  $2\sqrt{5}(4\sqrt{3} - 5\sqrt{12})$