Name:_____                    Period:_____Date:_____

# Multiplying Square Roots   Answers

## Section I.  Multiply and simplify

1.  $5\sqrt{2} \cdot \sqrt{2}$ → $5\sqrt{2 \cdot 2}$ → $5 \cdot 2 = 10$        2.  $\sqrt{3} \cdot -6\sqrt{3}$ → $-6\sqrt{3 \cdot 3}$ → $-6 \cdot 3 = -18$

3.  $\sqrt{6} \cdot \sqrt{12}$

 $\sqrt{6 \cdot 12}$ → $\sqrt{2 \cdot 3 \cdot 2 \cdot 2 \cdot 3} = 6\sqrt{2}$

4.  $-2\sqrt{6} \cdot \sqrt{3}$ →

 $-2\sqrt{6 \cdot 3}$ → $-2\sqrt{2 \cdot 3 \cdot 3} = -6\sqrt{2}$

5.  $-7\sqrt{2} \cdot -\sqrt{10}$     $14\sqrt{5}$        6.  $4\sqrt{7} \cdot -2\sqrt{7}$     $-56$

7.  $5\sqrt{12} \cdot 2\sqrt{6}$     $60\sqrt{2}$        8.  $2\sqrt{15} \cdot 4\sqrt{10}$     $40\sqrt{6}$

9.  $9\sqrt{2} \cdot -4\sqrt{14}$     $-72\sqrt{7}$        10.  $\frac{1}{4}\sqrt{6} \cdot -12\sqrt{15}$     $-9\sqrt{10}$

11.  $-9\sqrt{14} \cdot \frac{2}{3}\sqrt{21}$     $-42\sqrt{6}$        12.  $-3\sqrt{10} \cdot -8\sqrt{22}$     $48\sqrt{55}$

13.  $\frac{5}{13}\sqrt{26} \cdot \frac{4}{5}\sqrt{13}$     $4\sqrt{2}$        14.  $-\frac{1}{6}\sqrt{7} \cdot 12\sqrt{14}$     $-\sqrt{7}$