KidSmartEducation.com
YOUR PERSONAL LINK TO SUCCESS

Name:_____ Period:_____Date:_____

Simplifying Radicals Answers

Section I. Prime Factor Radicals in order to simplify

ie: $\sqrt{12} = \sqrt{2 \cdot 2 \cdot 3} = \pm 2\sqrt{3}$ ie: $\sqrt{700} = \sqrt{2 \cdot 2 \cdot 5 \cdot 5 \cdot 7} = 2 \cdot 5\sqrt{7} = \pm 10\sqrt{7}$

1. $\sqrt{20} = \sqrt{2 \cdot 2 \cdot 5} = \pm 2\sqrt{5}$

2. $\sqrt{45} = \sqrt{3 \cdot 3 \cdot 5} = \pm 3\sqrt{5}$

3. $\sqrt{75} = \sqrt{3 \cdot 5 \cdot 5} = \pm 5\sqrt{3}$

4. $\sqrt{147} = \sqrt{3 \cdot 7 \cdot 7} = \pm 7\sqrt{3}$

5. $\sqrt{98} = \sqrt{2 \cdot 7 \cdot 7} = \pm 7\sqrt{2}$

6. $\sqrt{50} = \sqrt{2 \cdot 5 \cdot 5} = \pm 5\sqrt{2}$

7. $\sqrt{27} = \sqrt{3 \cdot 3 \cdot 3} = \pm 3\sqrt{3}$

8. $\sqrt{180} = \sqrt{2 \cdot 2 \cdot 3 \cdot 3 \cdot 5} = 2 \cdot 3\sqrt{5} = \pm 6\sqrt{5}$

9. $\sqrt{108} = \sqrt{2 \cdot 2 \cdot 3 \cdot 3 \cdot 3} = 2 \cdot 3\sqrt{3} = \pm 6\sqrt{3}$

10. $\sqrt{243} = \sqrt{3 \cdot 3 \cdot 3 \cdot 3 \cdot 3} = 3 \cdot 3\sqrt{3} = \pm 9\sqrt{3}$

11. $\sqrt{32} = \sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} = 2 \cdot 2\sqrt{2} = \pm 4\sqrt{2}$

12. $\sqrt{80} = \sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 5} = 2 \cdot 2\sqrt{5} = \pm 4\sqrt{5}$

13. $\sqrt{392} = \sqrt{2 \cdot 2 \cdot 2 \cdot 7 \cdot 7} = 2 \cdot 7\sqrt{2} = \pm 14\sqrt{2}$

What are some prime Numbers?

____, _____, _____,

____, _____, _____,

____, _____, _____,

_____, _____, _____