1-4 Simplifying Radical Expressions

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

Simplify each algebraic expression below.

1. $\dfrac{18 \pm \sqrt{40}}{10}$

2. $\dfrac{-2 \pm \sqrt{60}}{2}$

3. $\dfrac{-15 \pm \sqrt{-27}}{12}$

4. $\dfrac{8 \pm \sqrt{-16}}{2}$

5. $\dfrac{12 \pm \sqrt{9}}{6}$

6. $\dfrac{-15 \pm \sqrt{-25}}{20}$

7. $\dfrac{20 \pm \sqrt{50}}{5}$

8. $\dfrac{-2 \pm \sqrt{200}}{2}$

9. $\dfrac{-16 \pm \sqrt{-32}}{4}$

10. $\dfrac{8 \pm \sqrt{-8}}{2}$

11. $\dfrac{6 \pm \sqrt{45}}{9}$

12. $\dfrac{-15 \pm \sqrt{-75}}{10}$

SAT Questions

_____ 13. If n is a positive integer that is divisible by 12 and 16, then n must also be divisible by

A. 28 B. 32 C. 48 D. 96 E. 192

_____ 14. If $3^{k+m} = 243$ and $2^m = 8$, then what is the value of 2^k?

_____ 15. If four times a certain number is decreased by 5, the result is 25. What is the number?

_____ 16. How many of the first fifty positive integers contain the digit 4?

_____ 17. If $16^{w+2} = 2^{11}$, what is the value of w?

A. 0.75 B. 1.33 C. 2.00 D. 3.50 E. 4.75

$0.\overline{23456} = 0.234562345623456234562345623456...$

_____ 18. In the repeating decimal above, what is the 2000^{th} digit to the right of the decimal?