Algebra 1 B **Name** _____

Unit 9 Objectives 1 to 5 Review **Period** _____ **Date** _____

Objective 1 – Estimate the square root. DO NOT USE A CALCULATOR.

1. $\sqrt{75} \approx$_____ 2. $\sqrt{133} \approx$_____ 3. $\sqrt{41} \approx$_____

Objective 2 – Simplify each square root to simplest radical form.

4. $\sqrt{12} =$_____ 5. $\sqrt{75} =$_____ 6. $\sqrt{300} =$_____

7. $\sqrt{48} =$_____ 8. $\sqrt{147} =$_____ 9. $\sqrt{128} =$_____

Objective 3 – Add and/or subtract the like radicals.

10. $3\sqrt{5} + 5\sqrt{3} - 3\sqrt{3} - 5\sqrt{5}$ 10. _____

11. $\sqrt{7} - 2\sqrt{6} - 5\sqrt{7} + 2\sqrt{6}$ 11. _____

12. $6 + 9\sqrt{2} - \sqrt{2} - 10$ 12. _____

Objective 4 – Multiply.

13. $\sqrt{2} \cdot \sqrt{12}$ 13. _____

14. $\sqrt{15} \cdot \sqrt{18}$ 14. _____

15. $2\sqrt{6} \cdot \sqrt{24}$ 15. _____

16. $-3\sqrt{5} \cdot 2\sqrt{10}$ 16. _____

17. $\left(4\sqrt{3}\right)^2$ 17. _____

18. $\left(-\sqrt{5}\right)^2$ 18. _____

19. $\sqrt{3}\left(\sqrt{6}+2\right)$ 19. _____

20. $-\sqrt{5}\left(\sqrt{5}-\sqrt{15}\right)$ 20. _____

Objective 5 – Divide.

21. $\sqrt{\frac{64}{25}}$ 21. _____

22. $\sqrt{\frac{1}{121}}$ 22. _____

23. $\sqrt{\frac{400}{49}}$ 23. _____

24. $\frac{\sqrt{3}}{\sqrt{12}}$ 24. _____

25. $\frac{\sqrt{18}}{\sqrt{50}}$ 25. _____

26. $\frac{\sqrt{45}}{\sqrt{5}}$ 26. _____