
3.10 Homework - Simplifying Radicals

Name _____ Date _____ Period _____

Rewrite the following in simplified radical form and its decimal approximation.

1. $\sqrt{72}$

2. $-\sqrt{112}$

3. $\sqrt{-80}$

4. $\sqrt{\frac{16}{121}}$

5. $\frac{5}{\sqrt{7}}$

6. $3\sqrt{108}$

7. $-8\sqrt{52}$

8. $5\sqrt{252}$

9. $\sqrt{\frac{81}{100}}$

10. $\frac{9}{\sqrt{3}}$

11. $\frac{14 - \sqrt{147}}{7}$

12. $\frac{2 + \sqrt{-36}}{3}$

13. $\frac{6 + \sqrt{36 - 4(3)(-2)}}{6}$

14. $\frac{6 + \sqrt{36 - 4(5)(2)}}{10}$

15. $\frac{8 - \sqrt{64 - 4(1)(3)}}{2}$

16. $\frac{-3 + \sqrt{9 - 4(1)(9)}}{2}$

17. $\frac{-4 + \sqrt{16 - 4(2)(-5)}}{4}$

18. $\frac{4 - \sqrt{16 - 4(1)(13)}}{2}$

19. $(5 - 2i) + (4 + 4i)$

20. $(-2 + i) + (-1 - i)$

21. $(15 + 3i) - (9 - 3i)$

22. $(3 - 4i) + (2 + i)$

23. $(3 + 4i)(3 - 4i)$

24. $(5 - 2i)^2$

25. Give the decimal approximation for #11 (round to 3 decimal places).

26. Give the decimal approximation for #15 (round to 3 decimal places).