Name: _____ Class: _____ Date: _____ ID: A

Chapter 11 Practice Test

Simplify:

1. $\sqrt{32}$

2. $\sqrt{20}$

Simplify:

3. $\sqrt{4} \cdot \sqrt{30}$

4. $\sqrt{30} \cdot \sqrt{12}$

a. $9\sqrt{20}$
b. $12\sqrt{10}$
c. $6\sqrt{10}$
d. $3\sqrt{40}$

5. $11\sqrt{25}$

a. 137.5
b. 16
c. 55
d. 27.5

Simplify:

6. $\sqrt{\frac{121}{144}}$

7. Find the quotient and completely simplify the radical: $\frac{\sqrt{720}}{\sqrt{12}}$

Simplify:

8. $4\sqrt{6}+7\sqrt{6}-5\sqrt{6}$

9. $\sqrt{50}+\sqrt{72}$

10. $4\sqrt{3}-\sqrt{64}+6\sqrt{27}$

a. $14\sqrt{3}$
b. $22\sqrt{3}-8+6\sqrt{27}$
c. $9\sqrt{94}$
d. $22\sqrt{3}-8$

Simplify the expression.

11. $\sqrt{xy^3} \cdot \sqrt{x^3y}$

12. $\sqrt{\frac{50}{z^5}}$

13. $\sqrt{\frac{x}{y^4}}$

14. $\sqrt{144x^2}$

15. $\sqrt{81q^6}$

Solve:

16. $\sqrt{x-6}+5=-5$

17. $\sqrt{x+6}=x$

Solve.

18. $5\sqrt{x}-30=0$

19. $\sqrt{2x+1}=\sqrt{5x-32}$

20. Simplify the radical expression.
$\sqrt{\frac{27}{8}}$

21. Perform the indicated operations and simplify the result.
$\left(\sqrt{5}-\sqrt{3}\right)\sqrt{15}$

22. Find the product $\left(2x-\sqrt{3}\right)\left(2x+\sqrt{3}\right)$.

Solve:

23. $\sqrt{x+3}=-6$

a. 33
b. 33, -39
c. no real number solutions
d. -39

24. Solve the equation, if possible.
$\sqrt{3x-5}=5$

25. Solve the equation, if possible.
$\sqrt{2-3x}=-4$

Chapter 11 Practice Test
Answer Section

1. $4\sqrt{2}$
2. $2\sqrt{5}$
3. $2\sqrt{30}$
4. C
5. C
6. $\frac{11}{12}$
7. $2\sqrt{15}$
8. $6\sqrt{6}$
9. $11\sqrt{2}$
10. D
11. x^2y^2
12. $\frac{5\sqrt{2z}}{z^3}$
13. $\frac{\sqrt{x}}{y^2}$
14. $12x$
15. $9q^3$
16. no solution
17. 3
18. $x = 36$
19. $x = 11$
20. $\frac{3}{4}\sqrt{6}$
21. $5\sqrt{3} - 3\sqrt{5}$
22. $4x^2 - 3$
23. C
24. 10
25. No solution