

East Los Angeles College
Department of Mathematics
Math 125
Practice Test 2

Evaluate or simplify the following.

1. $\sqrt{16}$

2. $\sqrt{36}$

3. $\sqrt[3]{8}$

4. $\sqrt[3]{125}$

5. $\sqrt[3]{-125}$

6. $\sqrt[3]{40}$

7. $\sqrt{45}$

8. $\sqrt{50}$

9. $\sqrt{-9}$

10. $\sqrt{-24}$

Simplify the following radicals:

11. $\sqrt{45x^3y^6}$

12. $\sqrt[3]{24x^5y^2}$

Perform the following arithmetic with irrational numbers.

13. $3\sqrt{5} - 2\sqrt{5} + \sqrt{3}$

14. $6\sqrt{x} + 2\sqrt{y} - 4\sqrt{x}$

15. $3\sqrt{45} - 8\sqrt{20}$

16. $-4\sqrt{48} + 7\sqrt{27} - 5\sqrt{12}$

17. $\sqrt{3}(6 - \sqrt{3})$

18. $(\sqrt{7} - \sqrt{2})(\sqrt{5} + \sqrt{3})$

19. $(3\sqrt{2} + 4\sqrt{5})^2$

20. $\frac{5}{\sqrt{3}}$

21. $\frac{\sqrt{2}}{\sqrt{6}}$

22. $\frac{6}{\sqrt{x}}$

23. $\frac{5}{1 - \sqrt{3}}$

24. $\frac{2 + \sqrt{5}}{2 - \sqrt{5}}$

Perform the following arithmetic with complex numbers.

25. $(4 - i) + (-2 + 3i)$

26. $(-2 - 3i) - (-5 + 2i)$

27. $-6i \cdot 2i$

28. $-5i(3 + 4i)$

29. $(4 + 5i)(4 - 5i)$

30. $(3 - 5i)(1 - 2i)$

31. $\frac{2i}{4+i}$

32. $\frac{1+i}{4+3i}$

33. What is your name?

Answer Sheet

1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
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9		25	
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