

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

Simplify the following, every problem has a solution:

1. $\sqrt[3]{250}$

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

3. $\sqrt{45}$

4. $\sqrt{50}$

5. $\sqrt{-9}$

6. $\sqrt{-24}$

7. $\sqrt{-36}$

8. $\sqrt{-80}$

Simplify the following radicals:

9. $\sqrt{50x^2y^3}$

10. $\sqrt{45x^3y^7}$

Add/Sub the following:

11. $3\sqrt{5} - 2\sqrt{5} + \sqrt{3}$

12. $6\sqrt{x} + 2\sqrt{y} - 4\sqrt{x}$

13. $3\sqrt{45} - 8\sqrt{20}$

14. $-4\sqrt{48} + 7\sqrt{27} - 5\sqrt{12}$

Multiply or Divide the following:

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

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

17. $(3\sqrt{2} + 4\sqrt{5})^2$

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

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

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

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

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

Add or Sub the following complex numbers:

23. $(4 - i) + (-2 + 3i)$

24. $(-2 - 3i) - (-5 + 2i)$

Multiply or Divide the following:

25. $-6i \cdot 2i$

26. $-5i(3 + 4i)$

27. $(4 + 5i)(4 - 5i)$

28. $(3 - 5i)(1 - 2i)$

29. $\frac{5}{4i}$

30. $\frac{3}{2+i}$

31. $\frac{2i}{3-2i}$

32. $\frac{5-2i}{4+5i}$

Answer Sheet

1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		32	