

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

Evaluate the following:

1.  $\sqrt{25}$

2.  $\sqrt{-36}$

3.  $\sqrt{49}$

4.  $\sqrt{-100}$

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

6.  $\sqrt[3]{-64}$

Simplify the following:

7.  $\sqrt{32}$

8.  $\sqrt[3]{24}$

9.  $\sqrt{16x^3}$

10.  $\sqrt{-50}$

11.  $\sqrt{12x^2y^3}$

12.  $\sqrt[3]{54y^5}$

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Add/Sub the following:

13.  $2\sqrt{20} - 3\sqrt{12}$

14.  $3\sqrt{48} + 5\sqrt{9}$

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Multiply or Divide the following:

15.  $\sqrt{3}(2 + \sqrt{3})$

16.  $(1 + \sqrt{5})(1 - \sqrt{3})$

17.  $(\sqrt{7} + \sqrt{2})^2$

18.  $(1 + \sqrt{x})(1 - \sqrt{x})$

19.  $\frac{10}{\sqrt{5}}$

20.  $\frac{\sqrt{7}}{\sqrt{2}}$

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Add or Sub the following complex numbers:

21.  $(4 + 11i) + (6 - 5i)$

22.  $(-2 + i) - (5 - 4i)$

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Multiply or Divide the following:

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

24.  $(9 - i)(9 + 2i)$

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

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

27.  $\frac{4}{3i}$

28.  $\frac{5}{2+i}$

Solve the following absolute value equations and write your answers in set notation.

29.  $|x-5|+4=11$

30.  $|3x-2|+4=-11$

31.  $3|x+2|-9=21$

32.  $-2|x|+6=-18$

Solve and graph the following linear inequalities.

33.  $2|x-8|\leq 6$

34.  $-3|x+5|<-12$

35.  $|x+5|+8>22$

36.  $4|2x+5|-3\leq 13$