

Equations with Radicals

02/29/2012

**Student Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Instructions:**                    **Read each question carefully and select the correct answer.**

1.    The square root of the phrase, three multiplied by a number that is added to ten, is a number added to four. Find the solution set.

- A.     $x = -3, x = -2$
- B.     $x = -12, x = -8$
- C.     $x = -5/4, x = -1/2$
- D.     $x = -5, x = -1$

2.    A possible step to solving this sentence could be:

      "8 is 1 less than the cube root of three times  $x$ ."

- A.    adding 1 to both sides
- B.    subtracting 1 from both sides
- C.    adding 3 to both sides
- D.    subtracting 3 from both sides

3.    A possible step to solving this sentence could be:

      "The cube root of 3 more than  $x$  is 2."

- A.    squaring 2
- B.    cubing 2
- C.    subtracting 9
- D.    subtracting 27

4. Find the error in the steps to solve the following equation and choose the option that states how to correct the error.

Step 1:  $\sqrt{x} + 11 = 20$

Step 2:  $\sqrt{x} = 9$

Step 3:  $x = 81$

- A. square nine to get eighty one in step 4  
B. square the phrase "the square root of  $x$  plus 11" in step 1  
C. square both sides in to get  $x$  squared in step 3  
D. take the square root of both sides in step 1