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: $\left(\sqrt{x}\right)^2 = 9^2$
Step 4: $x = 3$

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