TEST 4 TAKE HOME CRN 10113 SEC 83 MATH 65 SUMMER 2014

8.2

1. **Multiply** $\sqrt{15} \cdot \sqrt{15}$

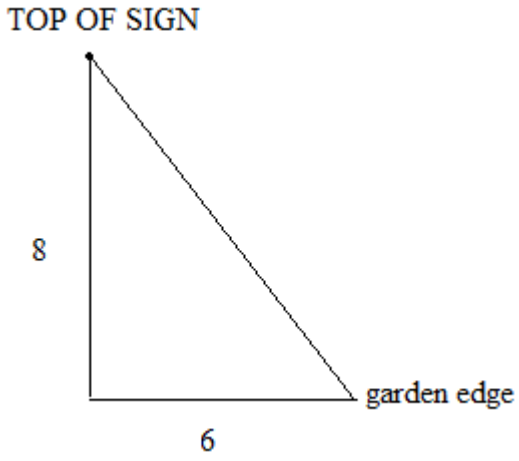
2. **Multiply** $\sqrt{3} \cdot \sqrt{11}$

3. **Simplify by factoring.**
   (a)
   $\sqrt{24}$
   (b)
   $\sqrt{50}$

4. Simplify .
(a)
$\sqrt{x^{36}}$
(b)
$\sqrt{x^9}$

5. **MULTIPLY AND SIMPLIFY** $\sqrt{x\ y^3} \cdot \sqrt{xy}$

SEC. 8.6.
6. Julia and Jordan want to run a string of blinking lights from the top of an 8 ft high sign to the edge of a garden 6 ft from the base of the sign. How long does the string of lights need to be?



9.1

7. Solve for x. $x^2 = 256$

8. Solve for x. $5x^2 = 10$

9. Solve for x. $2x^2 = 32$

10. Solve for x.
$(x + 7)^2 = 4$

11. Solve for x.
$(x + 7)^2 = 2$

9.3

12.

This problem deals with the solution to a quadratic equation of the form:

$ax^2 + bx + c = 0$.

The solution is given by the quadratic formula: WRITE DOWN THE LETTER OF CORRECT CHOICE.

a $x = \dfrac{-c \pm \sqrt{b^2 + 4ac}}{2a}$

b $x = \dfrac{-b \pm \sqrt{b^2 + 4ac}}{2a}$

c $x = \dfrac{-b \pm \sqrt{c^2 - 4ac}}{2a}$

d $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

e. nota

13. Solve for x. Solve by using the quadratic formula.
$x^2 + 4x = 21$

14. Solve using the quadratic formula.
$x^2 + 3x = -1$
The solution is:

15.
Solve using the quadratic formula.

$x^2 + 5x + 1 = 0$