Name _____ Core _____

Solve each expression.

5. $x^2 = 121$ $\sqrt{x^2} = \sqrt{121}$ $x = 11$

6. $\sqrt{64} =$ 8

7. $\sqrt[3]{512} =$ 8

8. $X^3 = 512$ $\sqrt[3]{x^3} = \sqrt[3]{512}$ $x = 8$

9. If the volume of a cube is 64. What is the edge length of the cube?

4 inches. $V = l \cdot w \cdot h$ $V = 64$ $\sqrt[3]{64} = 4$

10. If Tom is making a gift box that has a volume of *y* cubic inches.

Write an expression that represents the edge length of the gift box.

$V = l \cdot w \cdot h$

Y is from the problem → $y = l \cdot w \cdot h$

$\sqrt[3]{y}$ ← take cube root because its a cube ← this is how we find the length of each side

11. A rectangular garden has a length that is three times its width. The area of the garden is 147 square meters. What is the length of the garden? Use $(3w)(w) = 147$.

$(3w)(w) = 147$

$\frac{3w^2}{3} = \frac{147}{3}$

$w^2 = 49$

$\sqrt{w^2} = \sqrt{49}$

$w = 7$

Length = Width x 3

$L = 7 \times 3$

$L = 21$