Name: _____ Date: _____

Learning Goal 5.4	Solve radical equations, identifying extraneous roots and restrictions to the domain.

Recall Order of Operations. Use it to solve the following linear equation.

$$5 + 2(2x - 1) = 13$$

Example State any restrictions on the variable, if any. Solve.

a. $5 + \sqrt{2x - 1} = 12$

b. $\sqrt{2x - 1} + 5 = 2$

c. $-8+\sqrt{\frac{3y}{5}}=-2$

d. $\sqrt[3]{3x-1}+7=3$

Example An observer is in a hot air balloon that is attached to the top of a 200 metre tower whose base is at sea level. How high above the tower must the balloon be so the observer's distance to the horizon is 100 km?