

3.3:37 Solve.

$$-\frac{9}{8}y + 81 = \frac{9y}{16}$$

$$\frac{(2)(2)(2)(2)}{(1)} \left[-\frac{(9)}{(2)(2)(2)}y + \frac{(81)}{(1)} \right] = \frac{(2)(2)(2)(2)}{(1)} \left[\frac{(9y)}{(2)(2)(2)(2)} \right]$$

$$\left[\frac{(\cancel{2})(\cancel{2})(\cancel{2})(2)(9)}{(1)(\cancel{2})(\cancel{2})(\cancel{2})}y + \frac{(2)(2)(2)(2)(81)}{(1)(1)} \right] = \left[\frac{(\cancel{2})(\cancel{2})(\cancel{2})(\cancel{2})(9y)}{(1)(\cancel{2})(\cancel{2})(\cancel{2})(\cancel{2})} \right]$$

$$[-(2)(9)y] + [(2)(2)(2)(2)(81)] = [(9y)]$$

$$[-18y] + [(16)(81)] = [9y]$$

$$-18y + 1296 = 9y$$

$$-18y - 9y + 1296 = 9y - 9y$$

$$-27y + 1296 = 0$$

$$-27y + 1296 - 1296 = 0 - 1296$$

$$-27y = -1296$$

$$\frac{-27y}{-27} = \frac{-1296}{-27}$$

$$y = \frac{(16)(81)}{27}$$

$$y = \frac{(16)(3)(\cancel{27})}{(\cancel{27})}$$

$$y = 48$$

$8 = (2)(2)(2)$ $16 = (2)(2)(2)(2)$ $LCD = (2)(2)(2)(2)$
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81 $\times 16$ <hr/> 486 $+ 810$ <hr/> 1296
