

DO NOW:

19MAR14

- 1.) Answer the question below
- 2.) Have homework out
- 3.) Go over both 'DO NOW' & HW in your group
- 4.) Don't judge! You never know what kind of battle they are fighting.

***Solve when  $P = 0$ .***

$$P = n ( 120 - n ) - 50n$$



***HW Extra Practice 13.2 # 1-24 found in document folder***

**Solve when  $P = 0$ .**

$$P = n(120 - n) - 50n$$

$$\Theta = n(120 - n) - 50n$$

$$\Theta = 120n - n^2 - 50n$$

$$\Theta = 70n - n^2$$

$$\Theta = n(70 - n) \longrightarrow .$$

$$\nwarrow \text{ or } \nearrow$$

$$n = 0$$

$$70 - n = 0$$

$$n = 70$$

$$(14.) \quad 9x^2 - 27x = 0$$

$$9x(x-3) = 0$$

↙ or

$$\begin{array}{r} 9x = 0 \\ \hline 9 \quad 9 \\ \hline x = 0 \end{array}$$

↘

$$\begin{array}{r} x - 3 = 0 \\ +3 \quad +3 \\ \hline x = 3 \end{array}$$

\*14.  $\sqrt{\frac{20}{12}}$

$$\sqrt{\frac{20}{12}} = \sqrt{\frac{5}{3}}$$

$$= \frac{\sqrt{5}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{15}}{\sqrt{9}} = \frac{\sqrt{15}}{3}$$



15.  $\frac{1}{2}\sqrt{80}$

$$\frac{1}{2}\sqrt{80} =$$

$$\frac{\sqrt{80}}{2} =$$

$$\frac{\sqrt{16} \cdot \sqrt{5}}{2} =$$

$$\frac{4\sqrt{5}}{2} =$$

$$2\sqrt{5}$$

16.  $\frac{1}{3}\sqrt{27}$

$$\frac{1}{3}\sqrt{27}$$

$$= \frac{1}{3} \cdot 3\sqrt{3}$$

$$= \frac{1}{3} \cdot 3\sqrt{3}$$

$$= 1\sqrt{3}$$

$$= \sqrt{3}$$

17.  $\sqrt[2]{\sqrt{\frac{5}{4}}}$

$$\sqrt[2]{\sqrt{\frac{5}{4}}}$$

$$\frac{\sqrt{5}}{\sqrt{4}} =$$

$$\frac{\sqrt{5}}{2} =$$

$$\frac{\sqrt{5}}{2}$$

18.  $18\sqrt{\frac{5}{81}}$

$$18\sqrt{\frac{5}{81}}$$

$$\frac{18\sqrt{5}}{\sqrt{81}}$$

$$= \frac{18\sqrt{5}}{9}$$

$$= 2\sqrt{5}$$



$$\frac{18\sqrt{7}}{\sqrt{29}} \cdot \frac{\sqrt{29}}{\sqrt{29}} = \frac{18\sqrt{7}\sqrt{29}}{29}$$

19.  $\sqrt{\frac{1}{12}}$

$$\sqrt{\frac{1}{12}} = \frac{\sqrt{1}}{\sqrt{12}} \cdot \frac{\sqrt{12}}{\sqrt{12}}$$

$$= \frac{\sqrt{12}}{12}$$

$$= \frac{14 \cdot 3}{12}$$

$$= \frac{2 \cdot 3}{12} = \left( \frac{\sqrt{3}}{6} \right)$$

20.  $\sqrt{\frac{4}{5}}$

$$\sqrt{\frac{4}{5}} =$$

$$\frac{\sqrt{4}}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}} = \frac{\sqrt{20}}{5} = \frac{14 \cdot 5}{5} =$$

$$\frac{2 \sqrt{5}}{5}$$

21.  $2\sqrt{\frac{1}{2}}$

$$2\sqrt{\frac{1}{2}}$$

22.  $3\sqrt{\frac{5}{6}}$

$$3\sqrt{\frac{5}{6}}$$



$$(3\sqrt{7})^2 =$$

$$(3\sqrt{7})(3\sqrt{7})$$

$$(3 \cdot 3 \cdot \sqrt{7} \cdot \sqrt{7})$$

$$9 \cdot 7 = 63$$



$$\left(\frac{1}{3}\sqrt{5}\right)^2 =$$
$$\left(\frac{1}{3}\sqrt{5}\right)\left(\frac{1}{3}\sqrt{5}\right)$$
$$\frac{1}{9} \cdot 5 = \left(\frac{5}{9}\right)$$