Bellwork Alg 2A Friday, December 2, 2016

1. Use a shee tof graph paper to graph this system of inequalities. Shade the solution region a different color. Then state the coordinates of the corners of the solution region.

$y \geq \frac{1}{2}x - 2$ $y \geq -\frac{1}{2}x$ $4x + 8y \leq 48$ $11x - 22y \geq 88$

Coordinates of the soluion region are:

2. Model the following situation with a system of FIVE inequalities:

An employee of a vending machine company loads the truck with supplies to fill the vending machines. Cases of Coke have 24 cans and cases of Pepsi have 18 cans. The van can hold up to 80 cases. From experience the employee knows that they will need at least 360 cans of pop. The employee also knows that they will end up needing more cases of Coke than Pepsi.

Bellwork Alg 2A Friday, December 2, 2016 ANSWERS

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GRAPH IS ON GRAPH PAPER

Coordinates of the soluion region are: $(2, -1)$, $(8, 2)$, $(2, 5)$, $(-4, 2)$

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C = # cases of Coke
P = # cases of Pepsi

$C + P \leq 80$ $24C + 18P \geq 360$

$C > P$ $C > 0$

$P \geq 0$

① $y \geq \frac{1}{2}x - 2$

$y \geq -\frac{1}{2}x$

$4x + 8y \leq 48$

$11x - 22y \geq -88$

x-int $= 12$
y-int $= 6$

x-int $= -8$
y-int $= +4$