| Aldine 9: Algebra Homework \#39 | Assigned | Due |
| :---: | :---: | :---: |
| www.aldine9math.weebly.com |  | A $1 / 28$ Wed |
| Name: |  | Period: |

Choose the correct system of equations from the following situations.

1) Chase and Sara went to the candy store. Chase bought 5 pieces of fudge and 3 pieces of bubble gum for a total of $\$ 5.70$. Sara bought 2 pieces of fudge and 10 pieces of bubble gum for a total of $\$ 3.60$. Which system of equations could be used to determine the cost of 1 piece of fudge, $f$, and 1 piece of bubble gum, $g$ ?
A $5 f+3 g=3.60$
B $5 f+2 g=5.70$
$2 f+10 g=5.70$
$3 f+10 g=3.60$
C $f+g=22$
D $5 f+3 g=5.70$
$7 f+13 g=9.30$
$2 f+10 g=3.6$
2) The number of boys in Ms. Mershimer's classes was 18 less than twice the number of girls. She had a total of 111 students in her classes. Which system of equations will determine the number of boys, $b$, and the number of girls, $g$, in Ms. Mershimer's classes?
A $\mathrm{b}=2(\mathrm{~g}-18)$
B $\mathrm{b}=2 \mathrm{~g}+18$
$b+g=111$
$\mathrm{g}=111-\mathrm{b}$
C $\mathrm{b}=2 \mathrm{~g}-18$
D $\mathrm{g}=2 \mathrm{~b}-18$
$b+g=111$
$\mathrm{b}=111-\mathrm{g}$
3) The perimeter of a rectangular garden is 72 feet. Which system of equations can be used to find the dimensions of the garden if its length, $L$, is 3 times its width, $w$ ?
A $2 \mathrm{~L}+2 \mathrm{w}=72$
B $2 \mathrm{~L}+2 \mathrm{w}=72$
$\mathrm{L}=\mathrm{w}-3$
$\mathrm{L}=3 \mathrm{w}$
C $\mathrm{Lw}=72$
D $\mathrm{L}+\mathrm{w}=72$
$\mathrm{L}=\mathrm{w}+3$
$\mathrm{L}=3 \mathrm{w}$
4) Jay purchased 3 CDs and 2 pairs of sunglasses for $\$ 336$. Will purchased 5 CDs and a pair of sunglas ses for $\$ 210$. Which of the following models the situation, if $x$ represents the number of CDs and $y$ is the number of sunglasses?

$$
\mathbf{F}\left\{\begin{array} { l } 
{ 3 3 6 = 3 x + 2 y } \\
{ 2 1 0 = 5 x + y }
\end{array} \quad \mathbf { G } \left\{\begin{array} { l } 
{ 2 1 0 = 3 x + 2 y } \\
{ 3 3 6 = 5 x + y }
\end{array} \quad \mathbf { H } \left\{\begin{array} { l } 
{ 3 3 6 = 2 x + 3 y } \\
{ 2 1 0 = x + 5 y }
\end{array} \quad \mathbf { J } \left\{\begin{array}{l}
210=2 x+3 y \\
336=x+5 y
\end{array}\right.\right.\right.\right.
$$

5) Solve the system by graphing.

$$
\begin{aligned}
& y=3 x-3 \\
& y=-x+5
\end{aligned}
$$


7) Based on the tables, where do the 2 lines intersect?

Line A

| -4 | 16 |
| :---: | :---: |
| -3 | 12 |
| 0 | 0 |
| 1 | -4 |
| 2 | -8 |

Line $B$

| -10 | 28 |
| :---: | :---: |
| -8 | 24 |
| -6 | 20 |
| -4 | 16 |
| -2 | 12 |

6) What is the value of $\mathbf{x}$ using the system below?

$$
\begin{array}{r}
12 x-5 y=-7 \\
-10 x+5 y=5
\end{array}
$$

8) Draw a system (2 lines) with no solution, and both lines have a negative slope.

