Name: Key **Period:** Wedn. 1/15th

Bell Ringer

$d + c = 7$

1. Douglas bought a total of 7 dvds and cds. He paid $10 for each dvd and $8 for each cd. If he spent $64, how many dvds and cds did he buy?

Write the system of linear equations:

Variable: dvds : d

Variable: cds : c

Equation 1: $d + c = 7$

Equation 2: $10d + 8c = 64$

2. How many dvds and cds did Douglas by in Question #1. Solve the system of equations you wrote for #1 by using the table below.

$c = -1.25d + 8$

$c = -1.25(1) + 8$

$c =$

X (# of dvds)	Equation 1: (# of cds) $d + c = 7$
1	6
2	5
3	4
4	3
5	2
6	1

X (# of dvds)	Equation 2: (# of cds) $10d + 8c = 64$
1	6.75
2	5.5
3	4.25
4	3
5	1.75
6	.50

OR

$y = mx + b$

-1.25

-1.25

Convert to solve for c

$10d + 8c = 64$

$-10d \quad -10d$

$\frac{8c}{8} = \frac{-10d + 64}{8}$

$c = -1.25d + 8$

Solution: $\boxed{(4, 3)}$

4 dvds & 3 cds