Answers.

Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L ?

Solve each system of equations below using multiplication with the addition method. Find the solution in the answer column and notice the word next to it. Write this word in the box containing the letter of that exercise. Keep working and you will hear about some "udder" nonsense.

(A) $5x - 2y = 4$
$3x + y = 9$
(2,3)

(B) $3x - 5y = 13$
$x - 2y = 5$
(1,-2)

(C) $7x + 2y = -1$
$3x - 4y = 19$
(1,-4)

(D) $x + 2y = 6$
$5x + 3y = 2$
(-2,4)

(E) $2x + 3y = 7$
$3x + 4y = 10$
(2,1)

(F) $7x - 3y = -5$
$3x + 2y = 11$
(1,4)

(G) $3x - 5y = 7$
$5x - 2y = -1$
(-1,-2)

(H) $4x + 3y = 9$
$3x + 4y = 12$
(0,3)

(I) $5x - 3y = 16$
$4x + 5y = -2$
(2,-2)

(J) $4x - 3y = -20$
$-x - 8y = 5$
(-5,0)

(K) $-3x + 7y = -1$
$-2x + 5y = 0$
(5,2)

(L) $5x + 6y = -11$
$3x + y = -4$
(-1,-1)

TWEET	(1, 2)
HIS	(2, 1)
SELLING	(−5, 0)
BIRDSEED	(−1, −2)
UDDER	(2, 0)
THE	(2, 3)
SINGING	(−5, 4)
STARTED	(2, −2)
FED	(−2, 4)
BUTTER	(−1, 3)
COWS	(1, 4)
MILK	(−1, −1)
FARMER	(1, −2)
AND	(0, 3)
WINGS	(2, −4)
WHO	(1, −4)
MOO	(1, 3)
CHEEP	(5, 2)
BEEF	(3, −2)

OBJECTIVE 6–f: To solve systems of equations using multiplication with the addition method (equations are in standard form).

$5x-2y=4$
$+\ 6x+2y=18$
$11x=22$
$x=2$
$y=3$

$3x-5y=13$
$-3x+6y=-15$
$y=-2$
$x=1$

$+14x+4y=2$
$3x-4y=19$
$17x=17$
$x=1, y=-4$ ( )

$-5x-10y=-30$
$5x+3y=2$
$-7y=-28$
$y=4$
$x=-2$

$6x+9y=21$
$-6x-8y=-20$
$y=1$

$-3(7x-3y=-5)$
$7(3x+2y=11)$
$-21x+9y=15$
$21x+14y=77$
$23y=92$
$y=4$
$x=1$

$-5(3x-5y=7)$
$3(5x-2y=-1)$
$-15x+25y=-35$
$15x-6y=-3$
$19y=-38$
$y=-2$
$x=-1$

$-3(4x+3y=9)$
$4(3x+4y=12)$
$-12x-9y=-27$
$12x+16y=48$
$7y=21$
$y=3$
$x=0$

① $-20x+12y=64$
$20x+25y=-10$
$37y=-74$
$y=-2$
$x=2$
$(2,-2)$

(J) $4x-3y=-20$
$-4x-32y=20$
$y=0$
$x=-5$
$(-5,0)$

(K) $6x-14y=2$
$-6x+15y=0$
$y=2$
$x=5$
$(5,2)$

(L)
$15x+18y=-33$
$15x+5y=20$
$13y=$

$5x+6y=-11$
~~$3x+6y=-4$~~
$-18x-6y=24$
$-13x=13$
$x=-1$
$y=-1$
$(-1,-1)$

13) $16x - 10y = 10$
$-8x - 6y = 6$

(0, -1)

14) $8x + 14y = 4$
$-6x - 7y = -10$

(4, -2)

15) $-4x - 15y = -17$
$-x + 5y = -13$

(8, -1)

16) $-x - 7y = 14$
$-4x - 14y = 28$

(0, -2)

17) $-7x - 8y = 9$
$-4x + 9y = -22$

(1, -2)

18) $5x + 4y = -30$
$3x - 9y = -18$

(-6, 0)

19) $-4x - 2y = 14$
$-10x + 7y = -25$

(-1, -5)

20) $3x - 2y = 2$
$5x - 5y = 10$

(-2, -4)

21) $5x + 4y = -14$
$3x + 6y = 6$

(-6, 4)

22) $2x + 8y = 6$
$-5x - 20y = -15$

same lines
infinite number of solutions

23) $-14 = -20y - 7x$
$10y + 4 = 2x$

(2, 0)

24) $3 + 2x - y = 0$
$-3 - 7y = 10x$

(-1, 1)

13) $16x-10y=10$
$-16x-12y=12$

$-22y=22$
$y=-1$

$(0,-1)$

14) $8x+14y=4$
$-12x-14y=-20$

$-4x=-16$
$x=4$

$(4,-2)$

15) $-4x-15y=-17$
$4x-20y=52$

$-35y=35$
$y=-1$

$(8,-1)$

16) ~~$x+y=y$~~
$4x+28y=-56$
$-4x-14y=28$

$14y=-28$
$y=-2$

$(0,-2)$

17) $28x+32y=-36$
$-28x+63y=-154$

$95y=-190$
$y=-2$

$(1,-2)$

18) $-15x-12y=90$
$15x-45y=-90$

$y=0$

$(-6,0)$

19) $20x+10y=-70$
$-20x+14y=-50$

$24y=-120$
$y=-5$

$(-1,-5)$

20) $-15x+10y=-10$
$15x-15y=30$

$-5y=20$
$y=-4$
$x=-2$

$(-2,-4)$

21) $15x+12y=-42$
$-15x-30y=-72$

$-18y=-72$
$y=4$

$(-6,4)$

22) $10x+40y=30$
$-10x-40y=-30$

23) $-7x-20y=-14$
$-2x+10y=-4$

$+\quad -4x+20y=-8$

$-11x=-22$
$x=2$

$(2,0)$

24) $2x-y=-3$
$10x+7y=-3$

$-10x+5y=15$

$+$

$12y=12$
$y=$

$(-1,1)$