6.4

Did you hear about... Key

A The	B crossed	C eyed	D college	E professor
F who	G seemed	H to	I have	J absolutely
K NO	L control	M over	N his	O pupils ?

DIRECTIONS:

Solve any inequality below. In the answer column, find the inequality that describes the solution set and notice the word next to it. Write this word in the box that has the same letter as that exercise.

KEEP WORKING AND YOU WILL HEAR ABOUT A COLLEGE EYE DEAL.

Ⓐ $2(3x - 5) > 2x + 6$ $x > 4$

Ⓑ $8(2 + x) \leq 3x - 9$ $x \leq -5$

Ⓒ $^{-}3(4x - 6) < 7 - x$ $x > 1$

Ⓓ $13x - 7(^{-}2 + x) \geq 4x - 10$ $x \geq -12$

Ⓔ $5(^{-}3x - 1) + 7 \leq {}^{-}x + 30$ $x \geq -2$

Ⓕ $12 + 5x > 2(8x - 6) - 7x$ $x < 6$

Ⓖ $9x - 2x \geq 14 - 9(^{-}x - 4)$ $x \leq -25$

Ⓗ $^{-}4(3 - 5x) - 11x < 3x + 6$ $x < 3$

Ⓘ $10(x + 2) > {}^{-}2(6 - 9x)$ $x < 4$

Ⓙ $7(2 + 2x) \geq 4(^{-}x - 10)$ $x \geq -3$

Ⓚ $11 + 3(^{-}8 + 5x) < 16x - 5$ $x > -8$

Ⓛ $^{-}6(7x - 1) < {}^{-}8x + 9(^{-}3x - 4)$ $x > 6$

Ⓜ $^{-}9x + 2(4x + 12) \leq 4(1 - 3x) - 13$ $x \leq -3$

Ⓝ $7(^{-}x + 4) + 16 \geq 5x - (10x - 6) - 6$ $x < 22$

Ⓞ $12(2x + 3) - 3(8 + 7x) > 0$ $x > -4$

$x < 6$—WHO

$x \leq {}^{-}3$—OVER

$x < 4$—HAVE

$x \geq 22$—STUDENTS

$x \leq {}^{-}5$—CROSS

$x \geq {}^{-}12$—COLLEGE

$x \leq {}^{-}2$—EYES

$x > 6$—CONTROL

$x > 4$—THE

$x < 1$—KNOW

$x < 3$—TO

$x \leq 22$—HIS

$x \geq {}^{-}2$—PROFESSOR

$x \leq {}^{-}25$—SEEMED

$x \geq {}^{-}3$—ABSOLUTELY

$x \geq {}^{-}25$—SUBJECT

$x > {}^{-}8$—NO

$x > 1$—EYED

$x < {}^{-}8$—HELP

$x > {}^{-}4$—PUPILS

$x < {}^{-}4$—TEACH

Key

(6.4) Did You Hear About...

(A) $2(3x-5) > 2x+6$

$6x-10 > 2x+6$ (−2x)

$4x-10 > 6$ (+10)

$4x > 16$

$\boxed{x > 4}$

The

(B) $8(2+x) \leq 3x-9$

$16+8x \leq 3x-9$ (−3x)

$16+5x \leq -9$ (−16)

$5x \leq -25$

$\boxed{x \leq -5}$

CROSSED

(C) $-3(4x-6) < 7-x$

$-12x+18 < 7-x$ (+x)

$-11x+18 < 7$ (−18)

$-11x < -11$

$\boxed{x > 1}$

Eyed

(D) $13x-7(-2+x) \geq 4x-10$

$13x+14-7x \geq 4x-10$

$6x+14 \geq 4x-10$ (−4x)

$2x+14 \geq -10$ (−14)

$2x \geq -24$

College $\boxed{x \geq 12}$

(E) $5(-3x-1)+7 \leq -x+30$

$-15x-5+7 \leq -x+30$

$-15x+2 \leq -x+30$ (+15x)

$+2 \leq 14x+30$ (−30)

$-28 \leq 14x$

$\boxed{-2 \leq x}$

(or) $x \geq -2$

professor

(F) $12+5x > 2(8x-6)-7x$

$12+5x > 16x+12-7x$

$12+5x > 9x-12$ (−9x)

$12-4x > -12$ (−12)

$-4x > -24$

$\boxed{x < 6}$

who

(G) $9x-2x \geq 14-9(-x-4)$

$9x-2x \geq 14+9x+36$

$9x-2x \geq 9x+50$ (−9x)

$-2x \geq 50$

$\boxed{x \leq -25}$

SEEMED

(H) $-4(3-5x)-11x < 3x+6$

$-12+20x-11x < 3x+6$

$-12+9x-3x < 3x+6$ (−3x)

$-12+6x < 6$ (+12)

$6x < 18$

TO $\boxed{x < 3}$

(I) $10(x+2) > -2(6-9x)$

$10x+20 > -12+18x$ (−18x)

$-8x+20 > -12$ (−20)

$-8x > -32$

$\boxed{x < 4}$ HAVE

(J) $7(2+2x) \geq 4(-x-10)$

$14+14x \geq -4x-40$ (+4x)

$14+18x \geq -40$ (−14)

$18x \geq -54$

ABSOLUTELY $\boxed{x \geq -3}$

(K) $11+3(-8+5x) < 16x-5$

$11-24+15x < 16x-5$

$-13+15x < 16x-5$ (−16x)

$-13 < x-5$ (+13)

$-x < 8$

NO $\boxed{x > -8}$

(L) $-6(7x-1) < -8x+9(-3x-4)$

$-42x+6 < -8x-27x-36$

$-42x+6 < -35x-36$ (+35x)

$-7x+6 < -36$ (−6)

$-7x < -42$

Control $\boxed{x > 6}$

(M) $-9x + 2(4x+12) \leq 4(1-3x) - 13$

$-9x + 8x + 24 \leq 4 - 12x - 13$

$-x + 24 \leq -9 - 12x$ (+12x)

$11x + 24 \leq -9$ (-24)

$11x \leq -33$

$\boxed{x \leq -3}$ OVER

(N) $7(-x+4) + 16 \geq 5x - (10x - 6) - 6$

$-7x + 28 + 16 \geq 5x - 10x + 6 - 6$

$-7x + 44 \geq -5x + 0$ (+7x)

$44 \geq 2x$

$\boxed{22 \geq x}$ OR $\boxed{x \leq 22}$ HIS

(O) $12(2x+3) - 3(8+7x) > 0$

$24x + 36 - 24 - 21x > 0$

$3x + 12 > 0$ (-12)

$3x > -12$

$\boxed{x > -4}$ Pupils