

Moving Words

Solve each equation in the top block and find the solution set in the bottom block. (One equation has no solution.)
Transfer the word from the top box to the corresponding bottom box. Keep working and you will get a shocking fact!

$\sqrt{x^2} = \sqrt{81}$ $x = \pm 9$	$y^2 - 49 = 0$ $y^2 = 49$ $y = \pm 7$	$4x^2 - 200 = -20$ $x^2 = 45$ $x = \pm \sqrt{45}$	$(x-2)^2 = 28$ $x-2 = \pm \sqrt{28}$ $x = 2 \pm \sqrt{28}$
$\sqrt{a^2} = \sqrt{20}$ $a = \pm \sqrt{20}$	$x^2 - 16 = 8$ $x^2 = 24$ $x = \pm \sqrt{24}$	$7y^2 + 18 = 4$ $y^2 = -2$ $y = \pm \sqrt{-2}$ X	$3(x-5)^2 = 12$ $x-5 = \pm \sqrt{4}$ $x = 5 \pm 2 = 3, 7$
$3n^2 = 45$ $n^2 = 15$ $n = \pm \sqrt{15}$	$b^2 + 11 = 86$ $b^2 = 75$ $b = \pm \sqrt{75}$	$(x-1)^2 = 9$ $x-1 = \pm 3$ $x = 1 \pm 3 = -2, 4$	$5(n+1)^2 = 40$ $n+1 = \pm \sqrt{8}$ $n = -1 \pm \sqrt{8}$
$7x^2 = 84$ $x^2 = 12$ $x = \pm \sqrt{12}$	$2x^2 - 3 = 15$ $2x^2 = 18$ $x^2 = 9 \rightarrow x = \pm 3$	$(a+3)^2 = 25$ $a+3 = \pm 5$ $a = -3 \pm 5 = -8, 2$	$(2x-3)^2 = 81$ $2x-3 = \pm 9$ $2x = 3 \pm 9 \Rightarrow 6, -3$
$2v^2 = 180$ $v^2 = 90$ $v = \pm \sqrt{90}$	$5w^2 + 8 = 58$ $w^2 = 10$ $w = \pm \sqrt{10}$	$(t-4)^2 = 7$ $t-4 = \pm \sqrt{7}$ $t = 4 \pm \sqrt{7}$	$(4t+1)^2 = 49$ $4t+1 = \pm 7$ $4t = -1 \pm 7 \Rightarrow -2, \frac{3}{2}$
no solution	$\{4 \pm \sqrt{7}\}$	$\{\pm \sqrt{12}\}$	$\{6, -3\}$
(12)	(15)	(4)	(19)
$\{\pm 9\}$	$\{\pm 3\}$	$\{7, 3\}$	$\{\pm \sqrt{20}\}$
(1)	(9)	(17)	(2)
$\{2, -8\}$	$\{\pm \sqrt{90}\}$	$\{\pm \sqrt{45}\}$	$\left\{\frac{3}{2}, -2\right\}$
(14)	(5)	(11)	(20)
$\{\pm \sqrt{75}\}$	$\{2 \pm \sqrt{28}\}$	$\{4, -2\}$	$\{-1 \pm \sqrt{8}\}$
(8)	(16)	(13)	(18)