MathVine - Pre-Algebra Name_____

Distributed Linear Equations Date_____ Period_____

Solve for X.

1) $-7(5x + 9) = -238$

2) $5(-7x + 9) = -270$

3) $7(-5x + 4) = -287$

4) $-10(9x - 7) = 700$

5) $3(8x + 5) = 135$

6) $9(6x - 7) = -333$

7) $2(9x + 7) = 14$

8) $4(-6x + 6) = 72$

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Solve for X.

1) $-7(5x + 9) = -238$

Answer: 5

2) $5(-7x + 9) = -270$

Answer: 9

3) $7(-5x + 4) = -287$

Answer: 9

4) $-10(9x - 7) = 700$

Answer: -7

5) $3(8x + 5) = 135$

Answer: 5

6) $9(6x - 7) = -333$

Answer: -5

7) $2(9x + 7) = 14$

Answer: 0

8) $4(-6x + 6) = 72$

Answer: -2

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Solution Steps

1) $-7(5x + 9) = -238$

$-7(5x + 9) = -238$

$(-7*5x)+(-7*9)$ $=$

$-35x - 63 = -238$

$+63 = +63$

$-35x = -175$

$/ -35 = / -35$

$x = 5$

2) $5(-7x + 9) = -270$

$5(-7x + 9) = -270$

$(5*-7x)+(5*9)$ $=$

$-35x + 45 = -270$

$-45 = -45$

$-35x = -315$

$/ -35 = / -35$

$x = 9$

3) $7(-5x + 4) = -287$

$7(-5x + 4) = -287$

$(7*-5x)+(7*4)$ $=$

$-35x + 28 = -287$

$-28 = -28$

$-35x = -315$

$/ -35 = / -35$

$x = 9$

4) $-10(9x - 7) = 700$

$-10(9x - 7) = 700$

$(-10*9x)+(-10*-7)$ $=$

$-90x + 70 = 700$

$-70 = -70$

$-90x = 630$

$/ -90 = / -90$

$x = -7$

5) $3(8x+5)=135$

$3(8x+5) = 135$
$(3*8x)+(3*5)$ $=$
$24x+15 = 135$
$-15 = -15$
$24x = 120$
$/24 = /24$
$x = 5$

6) $9(6x-7)=-333$

$9(6x-7) = -333$
$(9*6x)+(9*-7)$ $=$
$54x-63 = -333$
$+63 = +63$
$54x = -270$
$/54 = /54$
$x = -5$

7) $2(9x+7)=14$

$2(9x+7) = 14$
$(2*9x)+(2*7)$ $=$
$18x+14 = 14$
$-14 = -14$
$18x = 0$
$/18 = /18$
$x = 0$

8) $4(-6x+6)=72$

$4(-6x+6) = 72$
$(4*-6x)+(4*6)$ $=$
$-24x+24 = 72$
$-24 = -24$
$-24x = 48$
$/-24 = /-24$
$x = -2$