MathVine - Pre-Algebra Name_____

Distributed Linear Equations Date_____ Period_____

Solve for X.

1) $-10(-5x-9)=-360$

2) $2(6x+2)=112$

3) $4(x+9)=76$

4) $-2(-x-6)=26$

5) $-8(5x-2)=336$

6) $5(-2x+3)=55$

7) $6(-7x+1)=-36$

8) $-2(-6x+7)=-86$

MathVine - Pre-Algebra Name_____

Distributed Linear Equations Date_____ Period_____

Solve for X.

1) $-10(-5x-9)=-360$

Answer: -9

2) $2(6x+2)=112$

Answer: 9

3) $4(x+9)=76$

Answer: 10

4) $-2(-x-6)=26$

Answer: 7

5) $-8(5x-2)=336$

Answer: -8

6) $5(-2x+3)=55$

Answer: -4

7) $6(-7x+1)=-36$

Answer: 1

8) $-2(-6x+7)=-86$

Answer: -6

MathVine - Pre-Algebra

Name_____

Distributed Linear Equations

Date_____ Period_____

Solution Steps

1) $-10(-5x-9)=-360$

$-10(-5x-9) = -360$

$(-10*-5x)+(-10*-9)$ $=$

$50x+90 = -360$

$-90 = -90$

$50x = -450$

$/50 = /50$

$x = -9$

2) $2(6x+2)=112$

$2(6x+2) = 112$

$(2*6x)+(2*2)$ $=$

$12x+4 = 112$

$-4 = -4$

$12x = 108$

$/12 = /12$

$x = 9$

3) $4(x+9)=76$

$4(x+9) = 76$

$(4*x)+(4*9)$ $=$

$4x+36 = 76$

$-36 = -36$

$4x = 40$

$/4 = /4$

$x = 10$

4) $-2(-x-6)=26$

$-2(-x-6) = 26$

$(-2*-1x)+(-2*-6)$ $=$

$2x+12 = 26$

$-12 = -12$

$2x = 14$

$/2 = /2$

$x = 7$

5) $-8(5x-2)=336$

$$\begin{array}{lcl} -8(5x-2) & = & 336 \\ \$(-8*5x)+(-8*-2)\$\ \$=\$ & & \\ -40x+16 & = & 336 \\ -16 & = & -16 \\ -40x & = & 320 \\ /-40 & = & /-40 \\ x & = & -8 \end{array}$$

6) $5(-2x+3)=55$

$$\begin{array}{lcl} 5(-2x+3) & = & 55 \\ \$(5*-2x)+(5*3)\$\ \$=\$ & & \\ -10x+15 & = & 55 \\ -15 & = & -15 \\ -10x & = & 40 \\ /-10 & = & /-10 \\ x & = & -4 \end{array}$$

7) $6(-7x+1)=-36$

$$\begin{array}{lcl} 6(-7x+1) & = & -36 \\ \$(6*-7x)+(6*1)\$\ \$=\$ & & \\ -42x+6 & = & -36 \\ -6 & = & -6 \\ -42x & = & -42 \\ /-42 & = & /-42 \\ x & = & 1 \end{array}$$

8) $-2(-6x+7)=-86$

$$\begin{array}{lcl} -2(-6x+7) & = & -86 \\ \$(-2*-6x)+(-2*7)\$\ \$=\$ & & \\ 12x-14 & = & -86 \\ +14 & = & +14 \\ 12x & = & -72 \\ /12 & = & /12 \\ x & = & -6 \end{array}$$