Solve for x :

$$
\begin{aligned}
& \begin{aligned}
8-2|3 x-4| & =-24 \\
-8 & -8
\end{aligned} \\
& \frac{-2|3 x-4|}{-2}=\frac{-32}{-2} \\
& |3 x-4|=16 \\
& 3 x-4=16 \\
& \frac{3 x}{3}=\frac{20}{3} \\
& y=\frac{20}{3} \\
& \begin{array}{r}
3 x-4=16 \\
54+4
\end{array} \\
& 3 x=-12 \\
& x=-4 \\
& \therefore x=\left\{\frac{20}{3} \cdot 4\right\}
\end{aligned}
$$

## Homework Check:

17. $r=13$ or $r=3$
18. $c=2$ or $c=-10$
19. no solution
20. $g=-1$ or $g=-5$ 27. $y=3$ or $y=0$
21. $m=1$ or $m=-5$ 28. $x=1$ or $x=-5$
22. no solution
23. $w=2$ or $w=-2$
24. $v=6$ or $v=0$
25. no solution
26. $n=2$ or $n=-2$
27. no solution
28. $d=0$ or $d=-8$
29. $f=1.5$ or $f=-2$

Literal Equations - Equations that contain more then one variable

Solve for W :

$$
A=2 L+W
$$

$A-2 L=W$

Solve for x :

$$
\begin{aligned}
& y=5 x-6 \\
& +6 \\
& \frac{y+6}{5}=\frac{5 x}{5} \\
& \frac{y+6}{5}=x
\end{aligned}
$$

Solve for $y: 2 x-3 y=8$

$$
\begin{aligned}
\frac{-3 y}{-3} & =\frac{8-2 x}{-3} \\
y & =\frac{8-2 x}{-3}
\end{aligned}
$$

Solve for x : $\frac{x+y}{3}=5$

$$
\begin{gathered}
3 \cdot \frac{x+y}{3}=5 \cdot 3 \\
x+y=15 \\
x=15-y
\end{gathered}
$$

Solve for $L$ : $A=\frac{R}{2 L} \cdot L$

$$
\frac{1}{A} \cdot L A=\frac{R}{2} \cdot \frac{1}{A} \quad L=\frac{R}{2 A}
$$

Solve for $I: R=\frac{E}{l}$

$$
\begin{aligned}
& \text { Solve for } b: A=\frac{1}{2} n b+c \\
& A-c=\frac{1}{2} h b \\
& \begin{array}{cl}
A-C=\frac{1}{2} h b \\
2(A-C)=\left(\frac{1}{2} h b\right) 2 . & \frac{V}{5 h}=r^{2}
\end{array} \\
& \frac{2(A-C)}{h}=\frac{h b}{s h} \\
& \begin{array}{cc}
\frac{2(A-C)}{h}=\frac{h b}{\text { Solve for } x: \frac{2(3 x-4)}{m}}=\frac{y}{m}=r \\
\frac{2(A-C)}{h}=b & \begin{array}{ll}
3 x-4 & =\frac{y}{m} \\
& +4 \\
& 3 x=4
\end{array}
\end{array} \\
& \begin{array}{c}
\frac{2(A-C)}{h}=b
\end{array} \begin{array}{c}
\text { sö̀ve for } x: \frac{n(3 x-4)}{m}=\frac{y}{m} \\
3 x-4 \\
+4 \\
\\
\\
\\
3 x=\frac{y}{m}+4
\end{array} \\
& \text { Solve for } r: \frac{v}{5 h}=\frac{5 r^{2} h}{5 h} \\
& \sqrt{\frac{v}{5 h}}=r \\
& \begin{array}{l}
3 x=\left(\frac{y}{m}+4\right) \\
3
\end{array} \\
& x=\frac{\frac{y}{m}+4}{3}
\end{aligned}
$$

Solve for y : $\mathrm{C}=\frac{4}{3} \mathrm{y}-\mathrm{b}$
Solve for $z: x=\frac{y z}{6}$

$$
\begin{gathered}
\left(\frac{3}{4}\right)(c+b)=\frac{4}{3} y\left(\frac{3}{4}\right) \\
\frac{3}{4}(c+b)=y
\end{gathered}
$$

$$
\begin{aligned}
& \frac{6 x}{y}=\frac{y z}{y} \\
& \frac{6 x}{y}=z
\end{aligned}
$$

Solve for $\mathrm{y}:\left(12 \mathrm{x}^{2}-4 \mathrm{y}^{2}=20\right) \div 4$

$$
\begin{aligned}
& \left(12 x^{2}-4 y^{2}=20\right)=4 \quad-3 x^{2}+y^{2}=5 \\
& 3 y^{2}-y^{2}=5 \\
& \sqrt{y^{2}}=5+3 x^{2}=5-3 x^{2} \quad y=\sqrt{-5+3 x^{2}} \\
& \sqrt{y^{2}}=\sqrt{5+3 x^{2}} \\
& y=\sqrt{-5+3 x^{2}}
\end{aligned}
$$

$$
\begin{array}{ll}
\quad|r-8|=5 & \\
r-8=5 & r-8=-5 \\
+8+8 & +8+8 \\
r=13 & r=3
\end{array}
$$

21.)

$$
\begin{aligned}
(-2) \mid 7 d & =\frac{14}{-2} \\
|7 d| & =-7
\end{aligned}
$$

No Solution
26)

$$
\begin{aligned}
& |3 t-2|+6=2 \\
& |3 t-2|=-4 \\
& N_{0} \text { Solution }
\end{aligned}
$$

