

Equations with Brackets.

Date:

Name:

Solve each equation below for the given variable. Show all working!

[1] $4(-3y - 7) = -112$	[2] $5(-2y - 9) = -125$	[3] $-3(-3y - 4) = 48$
[4] $-9(-y - 7) = 126$	[5] $-8(6 + 5y) = -248$	[6] $-3(-3y + 8) = 48$
[7] $-2(2y + 9) = -50$	[8] $-4(y + 7) = -56$	[9] $6(5y + 6) - 6y = 204$
[10] $-7 + 5(2y + 10) = 123$	[11] $3(5g + 3) + 8(g + 5) = 95$	[12] $11(9y + 2) - 7(2 + y) = 836$

ANSWERS:

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<p>[1] $4(-3y - 7) = -112$ $\begin{array}{r} -12y - 28 = -112 \\ +28 \quad +28 \\ \hline -12y = -84 \\ \hline y = 7 \end{array}$</p>	<p>[2] $5(-2y - 9) = -125$ $\begin{array}{r} -10y - 45 = -125 \\ +45 \quad +45 \\ \hline -10y = -80 \\ \hline y = 8 \end{array}$</p>	<p>[3] $-3(-3y - 4) = 48$ $\begin{array}{r} 9y + 12 = 48 \\ -12 \quad -12 \\ \hline 9y = 36 \\ \hline y = 4 \end{array}$</p>
<p>[4] $-9(-y - 7) = 126$ $\begin{array}{r} 9y + 63 = 126 \\ -63 \quad -63 \\ \hline 9y = 63 \\ \hline y = 7 \end{array}$</p>	<p>[5] $-8(6 + 5y) = -248$ $\begin{array}{r} -48 - 40y = -248 \\ +48 \quad +48 \\ \hline -40y = -200 \\ \hline y = 5 \end{array}$</p>	<p>[6] $-3(-3y + 8) = 48$ $\begin{array}{r} 9y - 24 = 48 \\ +24 \quad +24 \\ \hline 9y = 72 \\ \hline y = 8 \end{array}$</p>
<p>[7] $-2(2y + 9) = -50$ $\begin{array}{r} -4y - 18 = -50 \\ +18 \quad +18 \\ \hline -4y = -32 \\ \hline y = 8 \end{array}$</p>	<p>[8] $-4(y + 7) = -56$ $\begin{array}{r} -4y - 28 = -56 \\ +28 \quad +28 \\ \hline -4y = -28 \\ \hline y = 7 \end{array}$</p>	<p>[9] $6(5y + 6) - 6y = 204$ $\begin{array}{r} 30y + 36 - 6y = 204 \\ 24y + 36 = 204 \\ -36 \quad -36 \\ \hline 24y = 168 \\ \hline y = 7 \end{array}$</p>
<p>[10] $-7 + 5(2y + 10) = 123$ $\begin{array}{r} -7 + 10y + 50 = 123 \\ 10y + 43 = 123 \\ -43 \quad -43 \\ \hline 10y = 80 \\ \hline y = 8 \end{array}$</p>	<p>[11] $3(5g + 3) + 8(g + 5) = 95$ $\begin{array}{r} 15g + 9 + 8g + 40 = 95 \\ 23g + 49 = 95 \\ -49 \quad -49 \\ \hline 23g = 46 \\ \hline g = 2 \end{array}$</p>	<p>[12] $11(9y + 2) - 7(2 + y) = 836$ $\begin{array}{r} 99y + 22 - 14 - 7y = 836 \\ 92y + 8 = 836 \\ -8 \quad -8 \\ \hline 92y = 828 \\ \hline y = 9 \end{array}$</p>