Equations with Two Brackets.

Date: **Name:**

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

[1] $4(6e - 3) = 3(2e - 4)$	**[2]** $5(4 - 4) = 5(3j + 2)$	**[3]** $4(4p - 1) = 4(2p - 1)$
[4] $6(5f - 5) = 5(2f + 2)$	**[5]** $2(4y + 4) = 2(6y + 4)$	**[6]** $2(5p + 4) = 6(2p - 4)$
[7] $4(3c + 4) = 4(2c + 5)$	**[8]** $4(3e + 3) = 6(4e - 4)$	**[9]** $5(2v - 1) = 5(5v - 1)$
[10] $4(3x - 3) = 3(3x - 3)$	**[11]** $5(5b + 2) = 5(4b + 5)$	**[12]** $5(5y - 2) = 2(2y - 5)$

ANSWERS

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[1]

$4(6e - 3) = 3(2e - 4)$

$24e - 12 = 6e - 12$

$-6e \quad -6e$

$18e - 12 = -12$

$+12 \quad +12$

$\frac{18e}{18} = \frac{0}{18}$

$e = 0$

[2]

$5(4j - 4) = 5(3j + 2)$

$20j - 20 = 15j + 10$

$-15j \quad -15j$

$5j - 20 = 10$

$+20 \quad +20$

$\frac{5j}{5} = \frac{30}{5}$

$j = 6$

[3]

$4(4p - 1) = 4(2p - 1)$

$16p - 4 = 8p - 4$

$-8p \quad -8p$

$8p - 4 = -4$

$+4 \quad +4$

$\frac{8p}{8} = \frac{0}{8}$

$p = 0$

[4]

$6(5f - 5) = 5(2f + 2)$

$30f - 30 = 10f + 10$

$-10f \quad -10f$

$20f - 30 = 10$

$+30 \quad +30$

$\frac{20f}{20} = \frac{40}{20}$

$f = 2$

[5]

$2(4y + 4) = 2(6y + 4)$

$8y + 8 = 12y + 8$

$-8y \quad -8y$

$8 = 4y + 8$

$-8 \quad -8$

$\frac{0}{4} = \frac{4y}{4}$

$0 = y$

$y = 0$

[6]

$2(5p + 4) = 6(2p - 4)$

$10p + 8 = 12p - 24$

$-10p \quad -10p$

$8 = 2p - 24$

$+24 \quad +24$

$\frac{32}{2} = \frac{2p}{2}$

$16 = p$

$p = 16$

[7]

$4(3c + 4) = 4(2c + 5)$

$12c + 16 = 8c + 20$

$-8c \quad -8c$

$4c + 16 = 20$

$-16 \quad -16$

$\frac{4c}{4} = \frac{4}{4}$

$c = 1$

[8]

$4(3e + 3) = 6(4e - 4)$

$12e + 12 = 24e - 24$

$-12e \quad -12e$

$12 = 12e - 24$

$+24 \quad +24$

$\frac{36}{12} = \frac{12e}{12}$

$3 = e$

$e = 3$

[9]

$5(2v - 1) = 5(5v - 1)$

$10v - 5 = 25v - 5$

$-10v \quad -10v$

$-5 = 15v - 5$

$+5 \quad +5$

$\frac{0}{15} = \frac{15v}{15}$

$0 = v$

$v = 0$

[10]

$4(3x - 3) = 3(3x - 3)$

$12x - 12 = 9x - 9$

$-9x \quad -9x$

$3x - 12 = -9$

$+12 \quad +12$

$\frac{3x}{3} = \frac{3}{3}$

$x = 1$

[11]

$5(5b + 2) = 5(4b + 5)$

$25b + 10 = 20b + 25$

$-20b \quad -20b$

$5b + 10 = 25$

$-10 \quad -10$

$\frac{5b}{5} = \frac{15}{5}$

$b = 3$

[12]

$5(5y - 2) = 2(2y - 5)$

$25y - 10 = 4y - 10$

$-4y \quad -4y$

$21y - 10 = -10$

$+10 \quad +10$

$\frac{21y}{21} = \frac{0}{21}$

$y = 0$