Name: KEY

Algebra Worksheet – Eliminating Brackets

1. $-3(x-2) = 2(x+1)$

$-3x + 6 = 2x + 2$
$+3x \qquad +3x$

$6 = 5x + 2$
$-2 \qquad -2$

$\frac{5x}{5} = \frac{4}{5}$

$\boxed{x = \frac{4}{5}}$

2. $3(r+5) - 4r = -(r+6)$

$3r + 15 - 4r = -r - 6$

$-r + 15 = -r - 6$

$15 = -6$ NOT TRUE

$\boxed{\text{NO SOLUTION}}$

3. $5(r+1) - 4(r-2) = 2r + 5$

$5r + 5 - 4r + 8 = 2r + 5$

$r + 13 = 2r + 5$
$-r \qquad -r$

$13 = r + 5$
$-5 \qquad -5$

$\boxed{r = 8}$

4. $-9(q-5) = 4(-q-11) - 5q - 1$

$-9q + 45 = -4q - 44 - 5q - 1$

$-9q + 45 = -9q - 45$

$45 = -45$

$\boxed{\text{NO SOLUTION}}$

5. $3(x-5) + 6(x-2) = x + 7 - (3x+4)$

$3x - 15 + 6x - 12 = x + 7 - 3x - 4$

$9x - 27 = -2x + 3$
$+2x \qquad +2x$

$11x - 27 = 3$
$+27 \qquad +27$

$\frac{11x}{11} = \frac{30}{11}$

$\boxed{x = \frac{30}{11}}$

6. $3(2t-7) + 4(-t+2) = -3(t+2)$

$6t - 21 - 4t + 8 = -3t - 6$

$2t - 13 = -3t - 6$
$+13 \qquad +13$

$2t = -3t + 7$
$+3t \qquad +3t$

$\frac{5t}{5} = \frac{7}{5}$

$\boxed{t = \frac{7}{5}}$

7. $-7(r-1)+3(-2r-2)=6r-6(r+1)$

$-7r+7-6r-6=6r-6r-1$

$-13r+1=-1$

$\frac{-13r}{-13}=\frac{-2}{-13}$

$\boxed{r=2/13}$

8. $5(q-3)+2(q-2)=3(-q-7)$

$5q-15+2q-4=-3q-21$

$7q-19=-3q-21$
$+19 \qquad +19$

$7q=-3q-2$
$+3q \qquad +3q$

$10q=-2$

$q=-2/10$

$\boxed{q=-1/5}$

9. $-7(t-2)+8(2t-1)=9(t-3)$

$-7t+14+16t-8=9t-27$

$9t+6=9t-27$

$6=-27$

$\boxed{\text{NO SOLUTION}}$

10. $a+3(-4a+5)=-(-a-5)$

$a-12a+15=a+5$

$-11a+15=a+5$
$-a \qquad -a$

$-12a+15=5$
$-15 \quad -15$

$\frac{-12a}{-12}=\frac{-10}{-12}$ → $a=10/12$

$\boxed{a=5/6}$

How do you feel about things are going do far?

What do you need the most practice on, be specific?