**Equations & Inequalities Worksheet (KEY)**

**Solve the following equations for *x*. Show all your work.**

1. 2*x* = 10 *x* = 5
2. *x* + 9 = 21 *x* = 12
3. 8 + *x* = 30 *x* = 22
4. 30 = 5*x* *x* = 6
5. 14 = *x* – 7 *x* = 21
6. (-3)*x* = 30 *x* = -10
7. *x* – 5 = 32 *x* = 37
8. $\frac{x}{-2}=12 x= -24$

**Solve the following inequalities for *x*. Show all your work.**

1. 2 + *x* > 4 *x* > 2
2. $\frac{x}{3}<9$ *x* < 27
3. $\frac{x}{-2}\geq 5$ *x* ≥ -10
4. *x* + 2 < -3 *x* < -5
5. 15 < *x* + 2 *x* > 13
6. 4*x* ≤ 24 *x* ≤ 6
7. -6*x* > 18 *x* < -3
8. *x* – 7 < 7 *x* < 14