

Directions: When it's your turn, tell the members of your group do the indicated sequence of operations. After each operation, check if they have the correct work - if they do, give them a point. If they do not, they do not lose any points.

1) Starting at $x = -2$

Multiply both sides by x : $x^2 = -2x$

Divide both sides by 2: $\frac{x^2}{2} = -x$

Add 6 to both sides: $\frac{x^2}{2} + 6 = -x + 6$

Add $3x$ to both sides: $\frac{x^2}{2} + 3x + 6 = 2x + 6$

2) Starting at $x - y = 3$

Add x to both sides: $2x - y = x + 3$

Multiply both sides by 5: $10x - 5y = 5x + 15$

Subtract $5y$ from both sides: $10x - 10y = 5x - 5y + 15$

Subtract $10x$ from both sides: $-10y = -5x - 5y + 15$

3) Starting at $2x = 2(x - 3)$

Add 5 to both sides: $2x + 5 = 2(x - 3) + 5$

Subtract $3x$ from both sides: $-x + 5 = 2(x - 3) - 3x + 5$

Multiply both sides by -4 : $4x - 20 = -8(x - 4) + 12x - 20$

Simplify (don't solve): $4x - 20 = 4x - 12$

Change of Directions: The game works exactly the same, but now only check their answers and award points after you've given the final step (so if they mess up in the first step, they're going to miss out on a lot of points!)

4) Starting at $\frac{2}{3}(x - 5) = 6$

Add 6 to both sides: $\frac{2}{3}(x - 5) + 6 = 12$

Multiply both sides by 3: $2(x - 5) + 18 = 36$

Divide both sides by 2: $\frac{2(x - 5) + 18}{2} = \frac{36}{2}$

Simplify: $(x - 5) + 9 = 18$

(same as: $x + 4 = 18$)