**BLM 7.PR.12A: Representing Equivalent Expressions on a Balance Scale (Sample)**

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| **Concrete**  **Action** | **Pictorial**  **Representation** | **Symbolic Representation** |
| **Step One**  One student places a quantity of blocks on one pan of the balance, counting them out loud.  *Place 8 blocks on one pan and count to 8 while placing them.* | **BLM 7PR12A Representing Equivalent Expressions 1.jpg** | **8** |
| **Step Two**  Another student balances the scale by placing an equal, but different, representation of the quantity on the other pan, stating the quantities.  *Rebalance the scale.*  *Place 7 joined blocks and 1 single block on the other pan. Say 8 equals 7  plus 1.* | **BLM 7PR12A Representing Equivalent Expressions 2.jpg** | **8 = 7 + 1** |
| **Step Three**  Another student empties the second pan and rebalances the scale with a different, but equal, combination of blocks.  *Rebalance the scale.*  *Place 4 joined and 4 joined blocks on the other pan. Say 8 equals 4 plus 4.* | **BLM 7PR12A Representing Equivalent Expressions 3.jpg** | **8 = 4 + 4** |
| **Step Four**  Another student empties the second pan again and rebalances the scale with a different, but equal, combination of blocks.  *Rebalance the scale.*  *Place 3 joined and 5 joined blocks on the other pan. Say 8 equals 3 plus 5.* | **BLM 7PR12A Representing Equivalent Expressions 4.jpg** | **8 = 3 + 5** |
| **Equations representing equivalent expressions**  **7 + 1 = 4 + 4 4 + 4 = 3 + 5 7 + 1 = 3 + 5**  **7 + 1 = 1 + 7 3 + 5 = 5 + 3**  **OR**  **8 = 1 + 7 = 7 + 1 = 4 + 4 = 3 + 5 = 5 + 3** | | |