

What kinds of strategies might children use for an equal sharing problem?

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| <div>Non-Anticipatory</div> <div>Emergent Anticipatory</div> <div>Anticipatory</div> | Whole Items Only – Distributes whole items only without any partitioning | Repeated Halving – Begins partitioning by cutting in half. Then cuts in half again. May pass out wholes to start with. May finish by taking the number of sharers into account | Trial & Error – works through a small set of familiar fractions to determine which one results in partitioning items exclusively |
| | Whole items then each gets a piece of each (drawing) - Distributes wholes and then partitions remaining items into exactly as many parts as there are sharers | Each sharer gets a piece of each item (drawing) – All wholes are partitioned into exactly as many parts as there are sharers | Sharing Groups of items – Use multiplication facts or other number relationships to partition a group of items into exactly as many parts as there are sharers |
| | Whole items then each gets a piece of each (abstract) – Uses multiplication to determine how many whole items each sharer could get. Imagines partitioning each of the remaining items by the number of sharers and multiplies by the number items. | Each sharer gets a piece of each item (abstract) – Imagines partitioning each whole into exactly as many parts as there are sharers and then multiplies the size of the part by the number of items to be shared. | Solve simpler problem (abstract) ¹ – Reduces sharing situation by splitting number of items and number of sharers by a factor. (12 people share 10 things becomes 6 people share 5 things). Completes new problem using one of the other strategies. |

¹This strategy is rare