

Using a Conceptual Approach to Build Addition and Subtraction Fact Fluency with Understanding

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NUMBER FACT STRATEGIES

ADDITION

- Count-On 1, 2 and 0
- Use Doubles
- Make Ten

SUBTRACTION

- Think Addition

MULTIPLICATION

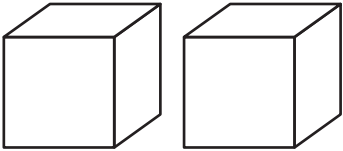
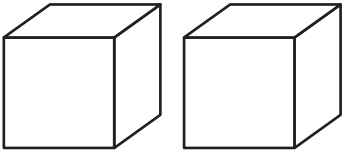
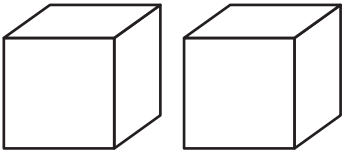
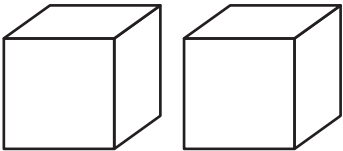
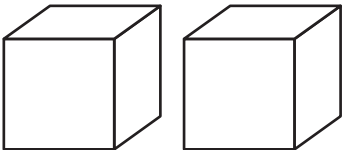
- Use Tens (5s)
- Make Generalizations (1s and 0s)
- Use Doubling (2s, 4s and 8s)
- Build Up/Down (9s and 6s)

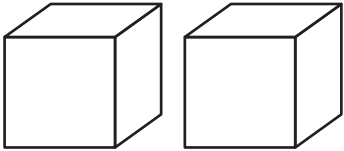
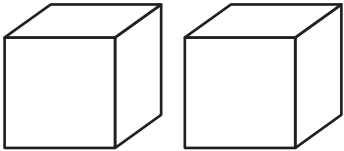
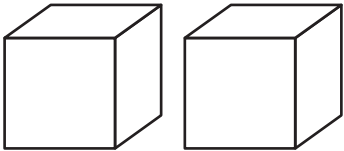
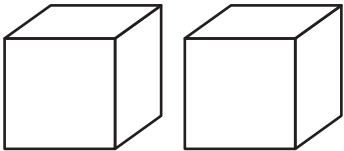
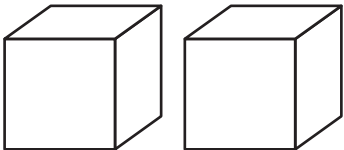
DIVISION

- Think Multiplication

REINFORCE: Count-On 1 and 2

- Roll your number cubes and count on 1 or 2.
- Find your answer below.
- Write your numbers on the number cubes. Write the number fact.

 ___ + ___ = 11
 ___ + ___ = 5
 ___ + ___ = 9
 ___ + ___ = 8
 ___ + ___ = 7

 ___ + ___ = 6
 ___ + ___ = 8
 ___ + ___ = 7
 ___ + ___ = 6
 ___ + ___ = 10

Cube A: 4, 5, 6, 7, 8, 9

Cube B: 

ADDITION CHART

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

- Count On facts
- Use Doubles facts
- Make Ten facts

REINFORCE: Double-add-1

11	19	13	15
13	9	17	19
17	11	15	9

Cube: 4, 5, 6, 7, 8, 9 (Same as previous game)

INTRODUCE: Make Ten

REINFORCE: Make Ten

- Roll your number cubes and write the fact below the example in the grid that will help you figure out the answer.
- Write the answer to both facts.

$10 + 6 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 5 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 5 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 4 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 4 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 3 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 3 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 2 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 1 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$

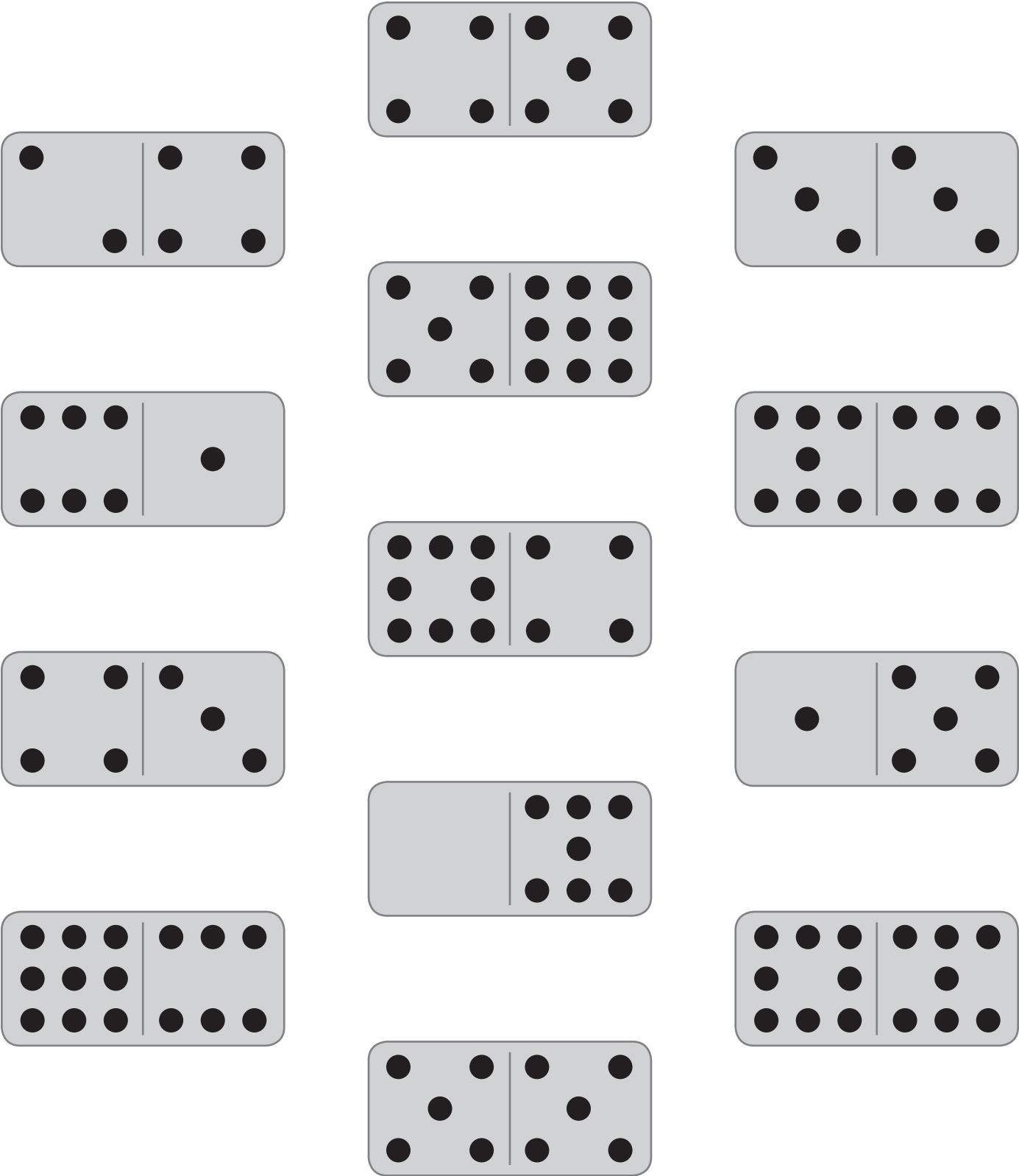
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$10 + 5 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 4 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
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$10 + 2 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$
$10 + 1 = \underline{\quad}$ $\underline{\quad} + \underline{\quad} = \underline{\quad}$

Cube A: 8, 8, 8, 9, 9, 9

Cube B: 3, 4, 5, 5, 6, 7

DOMINO SORT

Sort these dominos according to the addition strategy you would use to calculate the total number of dots.



Count On Use Doubles Make Ten

CONNECT ADDITION AND SUBTRACTION

Take or Tally

Player 1





Player 2

$13 - \underline{\quad\quad} = \underline{\quad\quad}$	$13 - \underline{\quad\quad} = \underline{\quad\quad}$
$12 - \underline{\quad\quad} = \underline{\quad\quad}$	$12 - \underline{\quad\quad} = \underline{\quad\quad}$
$11 - \underline{\quad\quad} = \underline{\quad\quad}$	$11 - \underline{\quad\quad} = \underline{\quad\quad}$
$10 - \underline{\quad\quad} = \underline{\quad\quad}$	$10 - \underline{\quad\quad} = \underline{\quad\quad}$
$9 - \underline{\quad\quad} = \underline{\quad\quad}$	$9 - \underline{\quad\quad} = \underline{\quad\quad}$
$8 - \underline{\quad\quad} = \underline{\quad\quad}$	$8 - \underline{\quad\quad} = \underline{\quad\quad}$
Tally	Tally

Cube A: 1, 2, 3, 1, 2, 3

Cube B: 7, 8, 9, 10, 11, 12

Cat and Mice

5		1		5		1
4	3	2	3	4	3	2
2	1	3	1	2	1	3
1	4	2	5	3	4	1
2	1	3	1	2	1	3
4	1	2	3	4	1	4
2	3	1		5	3	2
1 HOME	4 HOME	2 HOME	3 HOME	2 HOME	4 HOME	1 HOME

Materials: 2 standard dice