



## Preliminary Planning Sheet Grade 2 – Puzzle Pieces

### Domain(s)

Number and Operations in Base Ten

### Standard(s)

2.NBT.B.6

### Mathematical Practices

MP.1 MP.3 MP.4 MP.6

### Major Underlying Mathematical Concepts

- Addition/Subtraction
- Part/Whole reasoning
- Number sense to 150
- Ordinal numbers

### Problem Solving Strategies

- Model (manipulatives)
- Diagram/Key
- Table
- Number line
- Place value strips
- Number/Hundred chart

### Formal Mathematical Language and Symbolic Notation

- Model
- Diagram/Key
- Number line
- Place value strips
- Number/Hundred chart
- Amount
- Table
- Ordinal numbers: 1st, 2nd, 3rd ...
- Addition/Subtraction
- Difference
- Addend
- Equation
- Total/Sum
- Place value
- Ones, tens, hundreds
- Odd/Even
- More than (>)/Greater than (>)/Less than (<)
- Equivalent/Equal to
- Most/Least
- Per
- Day

### Possible Solution(s)

Andy needs 5 more puzzle pieces.

Day	Pieces	Total Pieces
1	36	36
2	41	77
3	68	145

$$36 + 41 + 68 + \square = 150$$

$$36 + 41 = 77$$

$$E + O = O$$

$$77 + 68 = 145$$

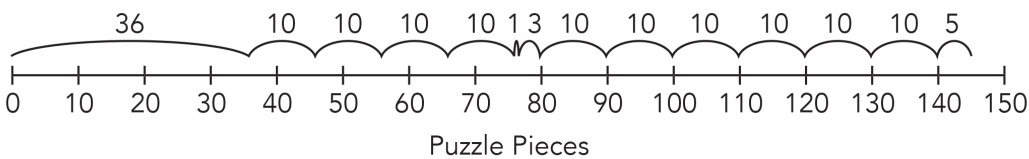
$$O + E = O$$

$$36 + 41 + 68 = 145$$

O number so  
pieces are missing

$$145 + \square = 150$$

36	77	150	145
<u>+ 41</u>	<u>+ 68</u>	<u>- 5</u>	<u>+ 5</u>
70	130	145	150
<u>+ 7</u>	<u>+ 15</u>		
77	145		



### Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Each day Andy puts a greater total of pieces in the puzzle.
- 41 puzzle pieces is an odd number.
- 36 puzzle pieces is 3 dozen.
- 68 puzzle pieces were the most done in a day.
- 36 puzzle pieces were the least done in a day.
- Solve more than one way to verify the answer.
- Relate to a similar problem and state a math link.
- On day 1, Andy puts an even number of pieces together.
- On day 2, Andy puts an odd number of pieces together.
- 50 pieces per day would have been an equal amount per day.
- Even + Odd = Odd, so it is clear some pieces are missing.