

Challenge**Addition Patterns**

Write all of the partners for each number.

1. How many **7**-partners are there? _____

_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____

2. How many **6**-partners are there? _____

_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____

3. How many **8**-partners are there? _____

_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____
_____ = _____ + _____	_____ = _____ + _____

Think About It Look at the number of partners there are for the numbers **6**, **7**, and **8**. What pattern do you see?

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Write all of the partners for each number.

1. How many 7-partners are there? 8

$$\begin{array}{l} \underline{7} = \underline{0} + \underline{7} \\ \underline{7} = \underline{1} + \underline{6} \\ \underline{7} = \underline{2} + \underline{5} \\ \underline{7} = \underline{3} + \underline{4} \end{array} \quad \begin{array}{l} \underline{7} = \underline{4} + \underline{3} \\ \underline{7} = \underline{5} + \underline{2} \\ \underline{7} = \underline{6} + \underline{1} \\ \underline{7} = \underline{7} + \underline{0} \end{array}$$

2. How many 6-partners are there? 7

$$\begin{array}{l} \underline{6} = \underline{0} + \underline{6} \\ \underline{6} = \underline{1} + \underline{5} \\ \underline{6} = \underline{2} + \underline{4} \\ \underline{6} = \underline{3} + \underline{3} \end{array} \quad \begin{array}{l} \underline{6} = \underline{2} + \underline{4} \\ \underline{6} = \underline{1} + \underline{5} \\ \underline{6} = \underline{0} + \underline{6} \end{array}$$

3. How many 8-partners are there? 9

$$\begin{array}{l} \underline{8} = \underline{0} + \underline{8} \\ \underline{8} = \underline{1} + \underline{7} \\ \underline{8} = \underline{2} + \underline{6} \\ \underline{8} = \underline{3} + \underline{5} \\ \underline{8} = \underline{4} + \underline{4} \end{array} \quad \begin{array}{l} \underline{8} = \underline{5} + \underline{3} \\ \underline{8} = \underline{6} + \underline{2} \\ \underline{8} = \underline{7} + \underline{1} \\ \underline{8} = \underline{8} + \underline{0} \end{array}$$

Think About It Look at the number of partners there are for the numbers 6, 7, and 8. What pattern do you see?

Possible answer: The number of partners is one more than the original number.