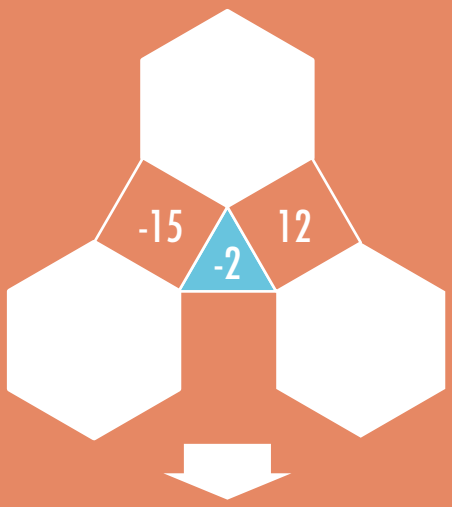
INTEGER TILES

DIFFICULTY LEVEL:

★–★★★★★

In an **Integer Tile** puzzle, the goal is to fill every hexagon with a positive or negative digit from 1-9 so that:

- No digit appears in more than 1 hexagon.
- The number in each triangle gives the **sum** of the integers in the hexagons it touches at its corners.
- The number in each square gives the **product** of the integers in the hexagons it touches on its sides.

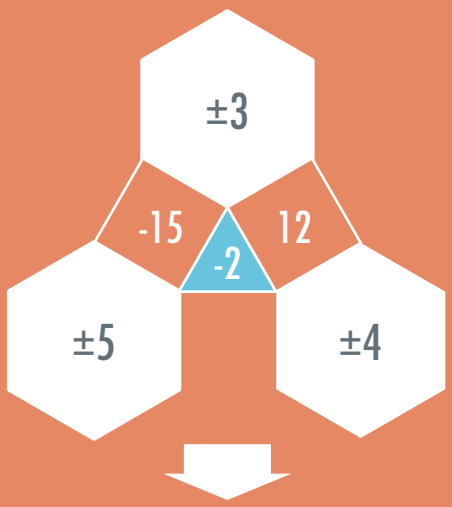


First we find the one-digit factor pairs we can use to make the products -15 and 12, ignoring signs for now.

For 12, we can use 2×6 or 3×4.

For 15, we can only use 3×5.

The only shared factor that can fill the top hexagon is 3. To give products of -15 and 12, the bottom hexagons must be 5 and 4.

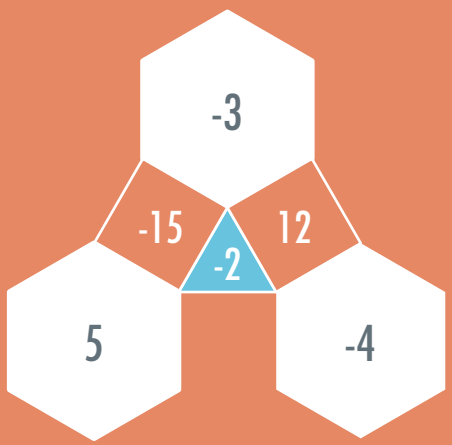


Next we determine the signs of these factors.

The factors 3 and 5 must have opposite signs to give a product of -15, while 3 and 4 must have the same sign to give a product of 12.

3+4+(-5) is 2, so we must use (-3)+(-4)+5 to get the correct sum of -2 given in the triangle clue.

We complete the puzzle as shown.



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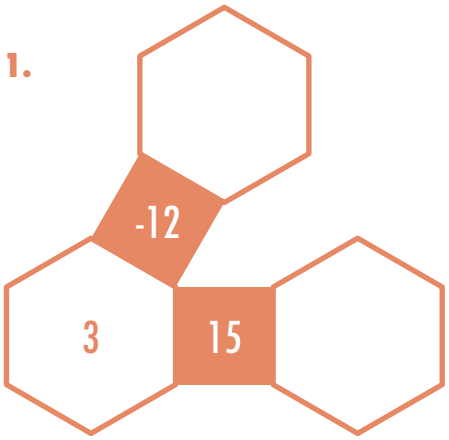

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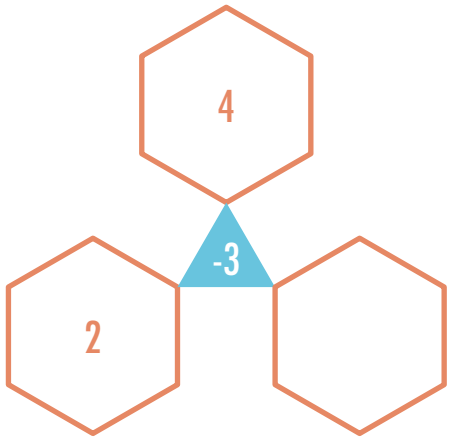

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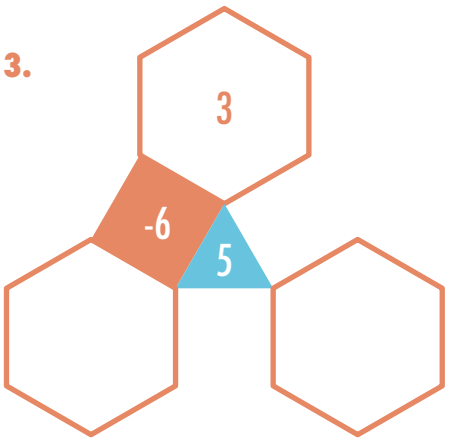

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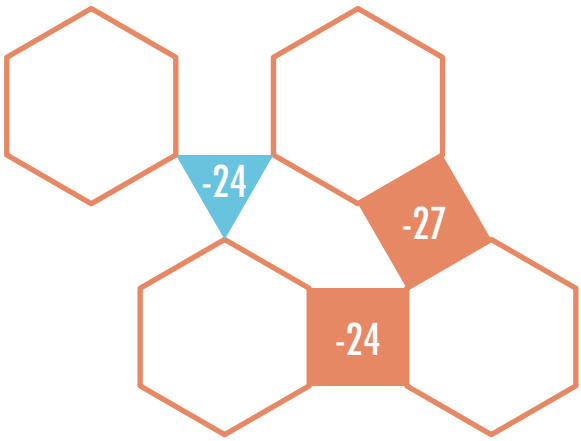

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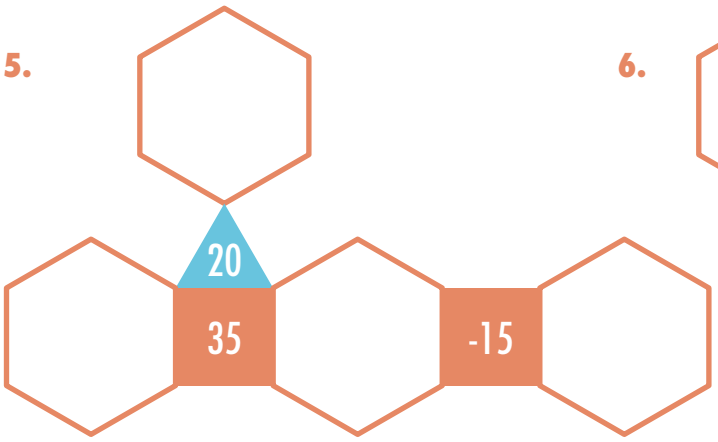

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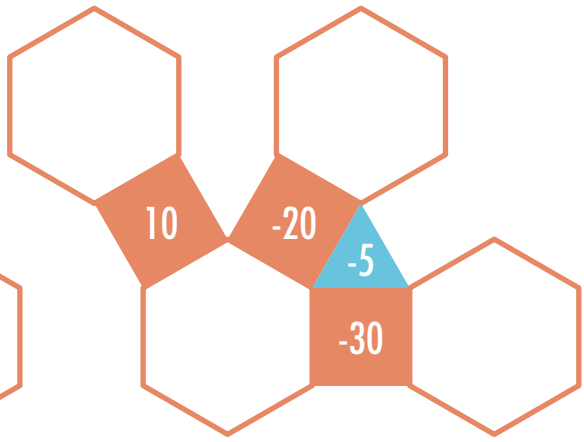

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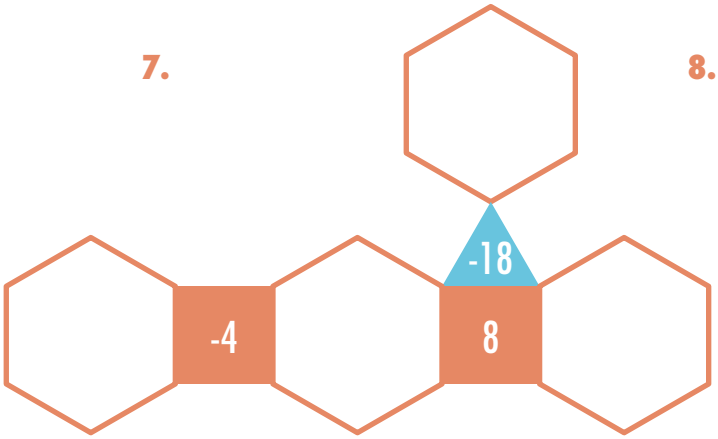

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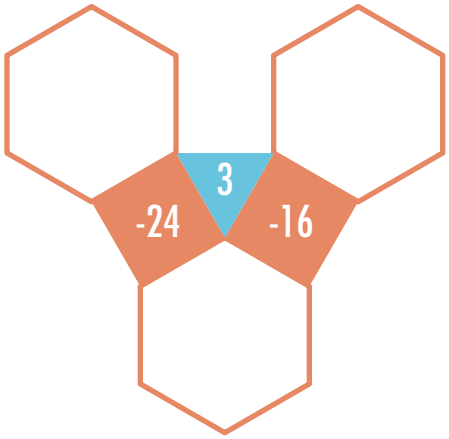

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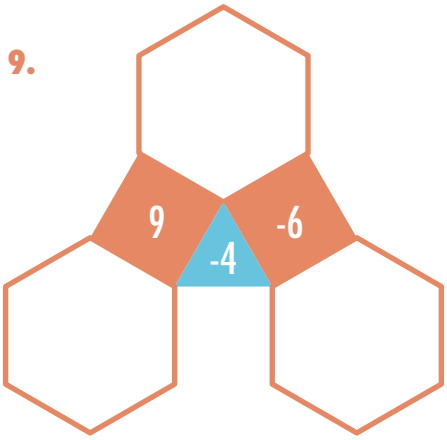

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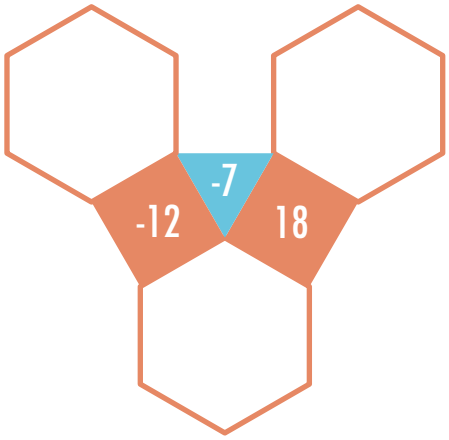

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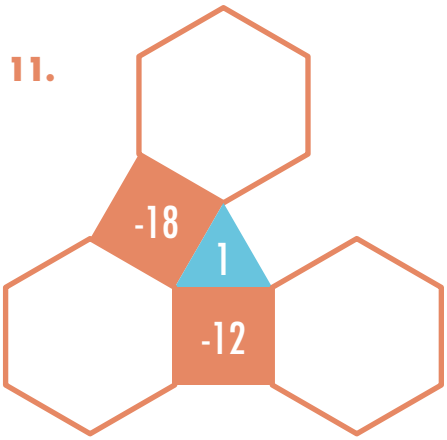

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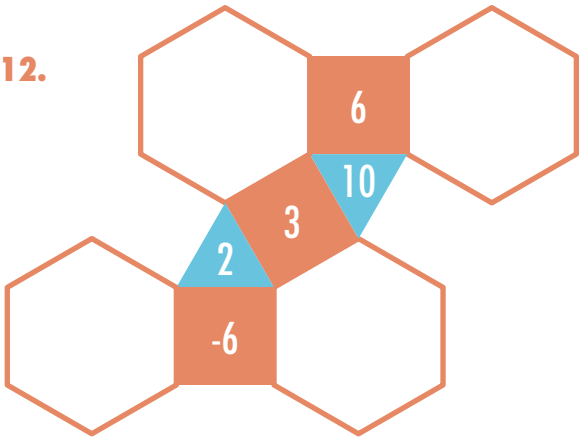

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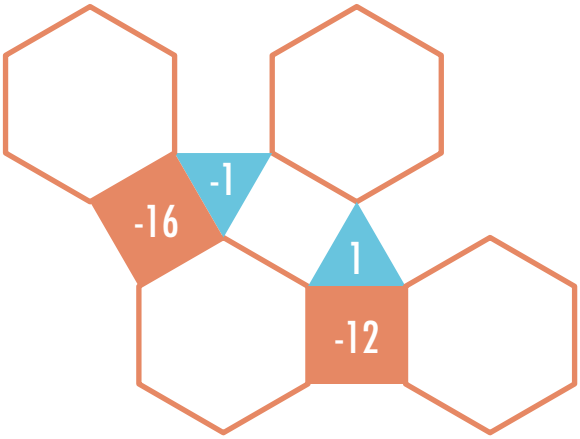

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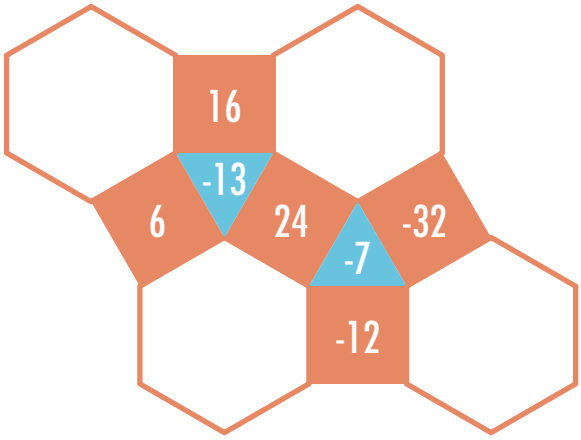

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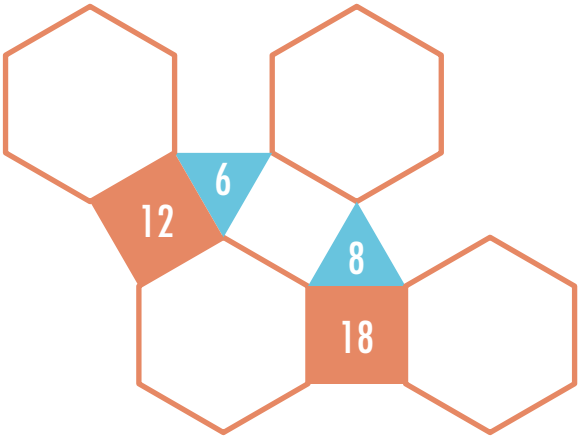

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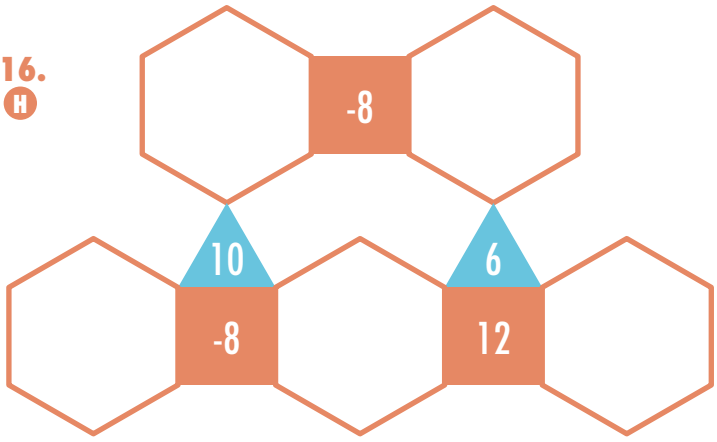

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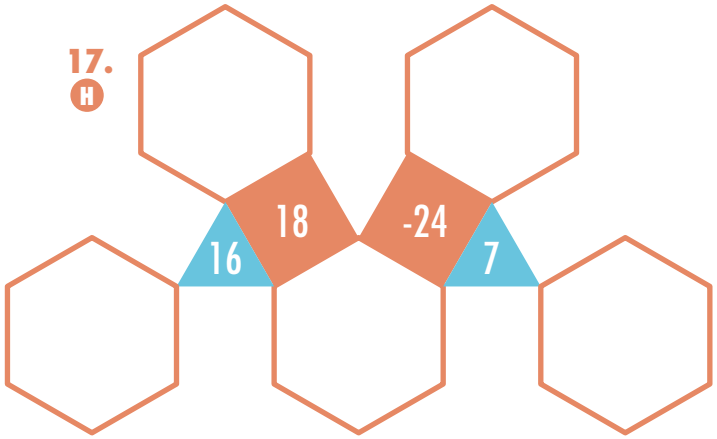
17. H



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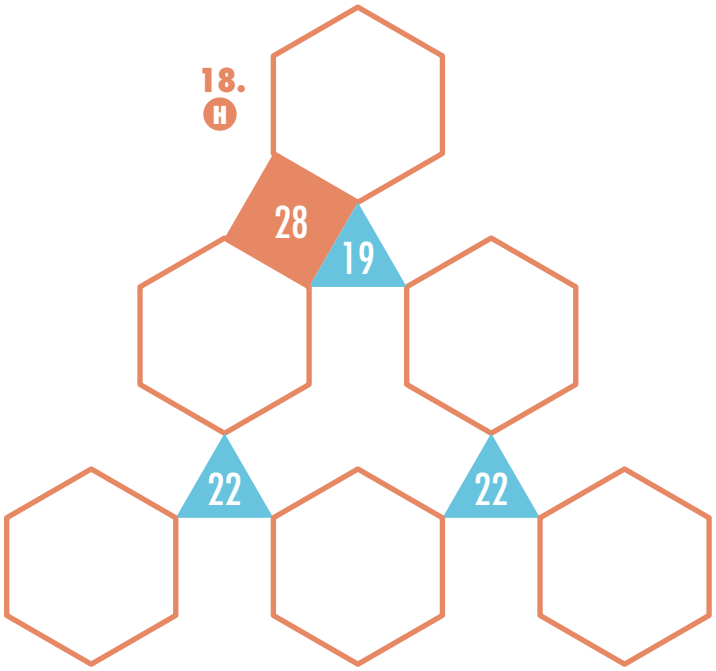

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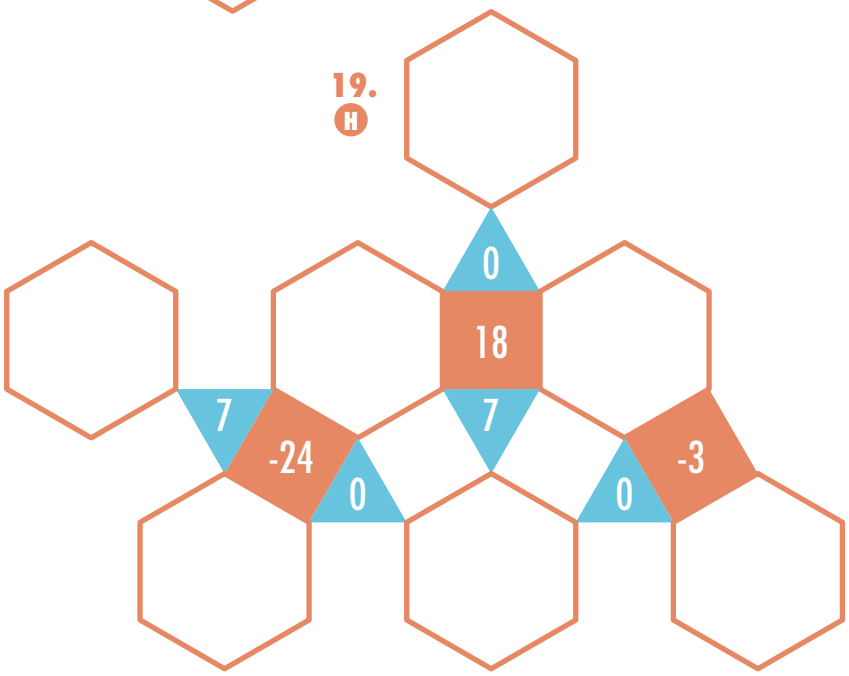

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INTEGER TILES SOLUTIONS

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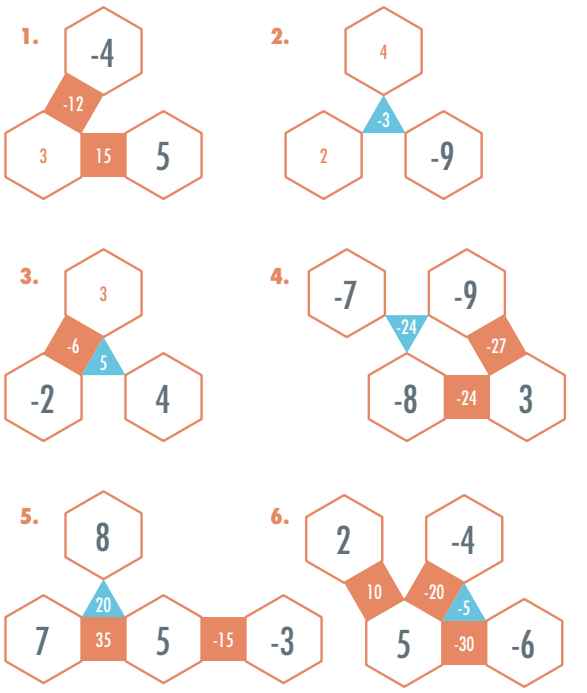

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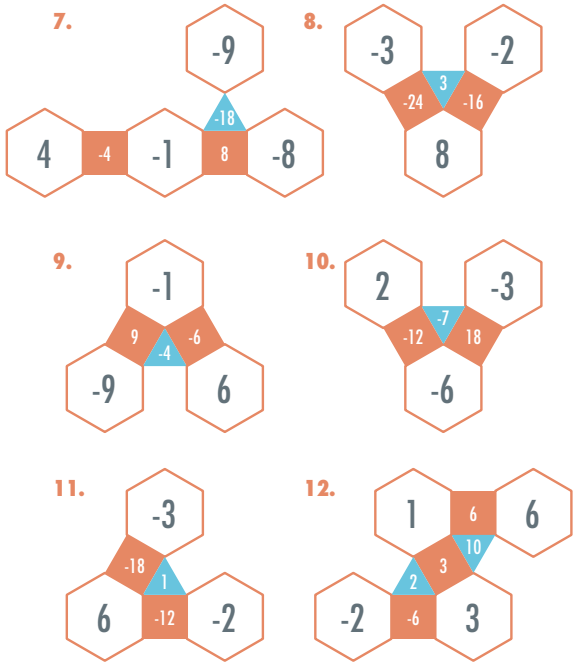

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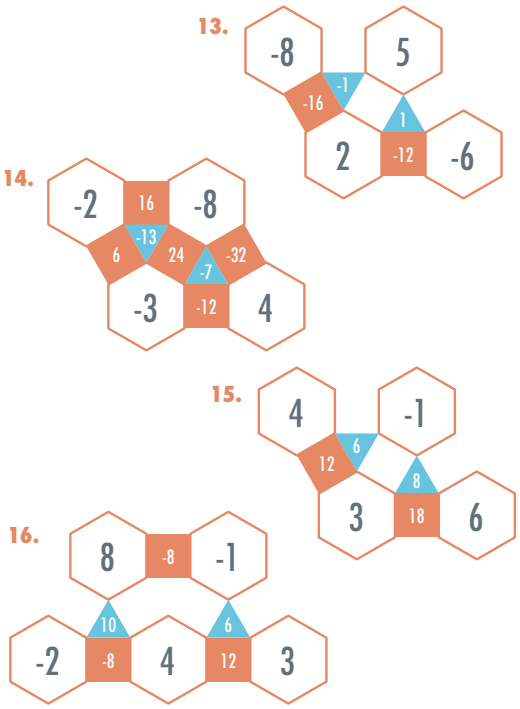

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