

# Pentominoes

## Challenge Cards



### Pentominoes

This is a set of different challenge activities for UKS2 children to practise their understanding of number and calculation.

There are questions on addition and subtraction and multiplication and division including multi-step calculations.

### Pentominoes

1

Your first challenge is to complete your pentomino puzzle. There are different solutions to the puzzle and it doesn't matter which way you choose. Good luck!

Record your answers and reasoning on the cards. You may need extra paper to show your workings.

### Pentominoes

2

Once your puzzle is complete:

- Add the digits in each corner. \_\_\_\_\_
- Add the digits in each row. \_\_\_\_\_
- Add the digits in each column. \_\_\_\_\_

Can you explain how you completed the addition calculations?

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a. Add the numbers on the perimeter tiles.

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b. Add the area numbers on the tiles.

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Can you explain how you completed the addition calculations?

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If you have completed these cards in order, the answers on card 2 will help you here!

Add the digits in each row then organise the numbers into 3 subtraction calculations and solve them.

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Can you explain your method for carrying out these calculations?

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If you have completed these cards in order, the answers on card 2 will help you here!

Find the sum of the corner numbers.

Record the factors of this number.

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What is your method of recording this?

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What is a prime number?

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Find and record all of the prime numbers in the puzzle.

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If you have completed these cards in order, the answers on card 2 will help you here!

Add the digits in each column then organise the numbers into 5 subtraction calculations and solve them.

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Can you explain your method for carrying out these calculations?

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\_\_\_\_\_  
\_\_\_\_\_

If you have completed these cards in order, the answers on card 2 will help you here!

Show your workings on this card.

Add the tile numbers from the last column and the top row.

\_\_\_\_\_

Multiply this number by the smallest two-digit number in the puzzle. \_\_\_\_\_

If you have completed these cards in order, the answers on card 2 will help you here!

Show your workings on this card.

Add the tile numbers from the bottom row and the middle two columns. \_\_\_\_\_

Multiply this number with the largest number on the top row.

\_\_\_\_\_

If you have completed these cards in order, the answers on card 3 will help you here!

Add the perimeter numbers. \_\_\_\_\_

Divide this number by the smallest number on the bottom row.  
Record your answer as a remainder and a fraction.

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