

Discussion Problems

Represent Numbers to 1,000

National Curriculum Objectives:

Mathematics Year 4: (4N3a) Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)

Mathematics Year 4: (4N4a) Identify, represent and estimate numbers using different representations

Mathematics Year 4: (4N6) Solve number and practical problems that involve 4N1 - 4N5 and with increasingly large positive numbers

About this resource:

This resource has been designed to provide pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

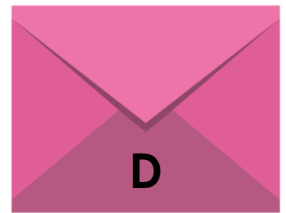
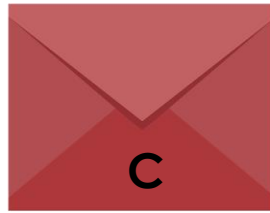
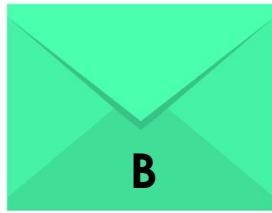
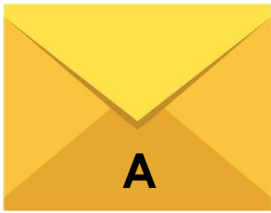
There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 4 Place Value resources.

Represent Numbers to 1,000

1. Emmett puts Base 10 into envelopes. He gives his friends clues as to what is in each one.



7 pieces

6 pieces

9 pieces

7 pieces

hundreds and
tens

ones and tens

hundreds and
ones

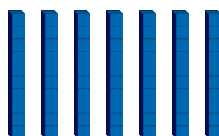
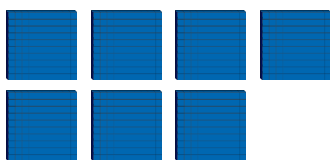
ones, tens and
hundreds

Investigate the possible value of each envelope. Find as many possibilities as you can.

Using your findings, discuss which envelope is the most valuable. Explain your answer.

DP

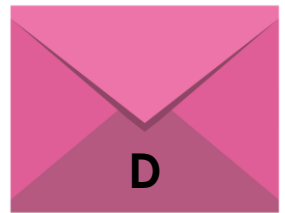
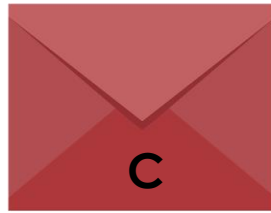
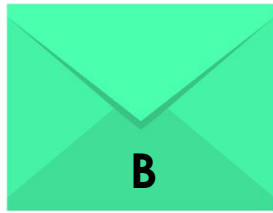
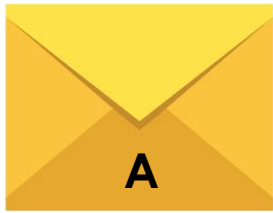
2. Krystal is creating numbers in descending order using Base 10. Explore the possible numbers she can create using all of the Base 10 provided.



DP

Represent Numbers to 1,000

1. Emmett puts Base 10 into envelopes. He gives his friends clues as to what is in each one.



7 pieces

6 pieces

9 pieces

7 pieces

hundreds and tens

ones and tens

hundreds and ones

ones, tens and hundreds

Investigate the possible value of each envelope. Find as many possibilities as you can.

Various answers, for example: Bag A – 160, Bag B – 15, Bag C – 504, Bag D – 133

Using your findings, discuss which envelope is the most valuable. Explain your answer.

C is the most valuable as this is the bag with the greatest number of hundreds available. The greatest number that can be made is 801.

DP

2. Krystal is creating numbers in descending order using Base 10. Explore the possible numbers she can create using all of the Base 10 provided. **Various combinations, for example:**

Numbers must be in descending order with all remaining Base 10 used.

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