



Challenge



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You will need:
• set of 1–9 digit cards

Shuffle a set of 1–9 digit cards.
Choose the top four cards.
Use these four digits to multiply a 1-digit number with two decimal places by a 1-digit number:

Investigate different calculations using the same digits.

Which calculation gives the greatest product?

Which calculation gives the smallest product?

Can you make a calculation that gives you a product that, when rounded to the nearest whole number, rounds to 20?

Think about ...

Use estimation to help you create calculations with the greatest and smallest products and that round to the required whole number.



For the 'What if?', think about partitioning the 2-digit number into tens and ones. For example, $2.38 \times 47 = (2.38 \times 40) + (2.38 \times 7)$.

What if?

What if you choose the top five cards and use the five digits to multiply a 1-digit number with 2 decimal places by a 2-digit number?

$$\square \cdot \square \square \times \square \square =$$

Investigate different calculations using the same digits.

Which calculation gives the greatest product?

Which calculation gives the smallest product?

Can you make a calculation that gives you a product that, when rounded to the nearest 100, rounds to 300?



When completed, consider:

Could you have calculated the answers in a different way?

Was your method the most efficient?