



$$35p - 7p = 28p$$

Sarah gave her brothers 28p.

James put some money in his pocket and went to the store. He used $\frac{9}{10}$ of his money to buy a book and had 23 remaining. How much did the book cost?



$$£3 \times 8 = £24$$

The book cost £24.

One of the best ways to become more confident using bar modelling is to use a game called 'Thinking Blocks' on the com. There are 4 free apps you can download called Thinking Blocks Addition, Multiplication, Ratio

Ways to help your child: Ask Questions:

Out and About

- What is the number on that bus/front door?
- Which direction are we walking in?
- Which way is left/right/forwards/backwards?
- How many steps up? (Count in 1's, 2's)
- How long until the next bus/train?
- How much does this cost?
- Which costs more/less?
- How much would two of these be?
- What is the price on that item?

- How much has this been reduced by.
- How much more do J need to buy this?
- How many can I buy with this much money?
- Which coins/notes do I have?

Preparing Meals

- Can you tell me what this weighs in grams/kilograms/pounds/ounces?
- Which weighs more?
- How much do you think this might weigh?
- What is the weight/capacity on the packet?
- Can you tell me what the capacity is in litres/millilitres?
- How much liquid does this cup hold?
- How many halves/quarters has this food been cut into?
- Can you help set the food timer?

In the shops

- How much does this cost?
- Which costs more/less?
- How much would two of these be?
- Which coins/notes do I have?
- What is the price on that item?
- How much has this been reduced by.
- How much more do J need to buy this?
- How many can I buy with this much money?

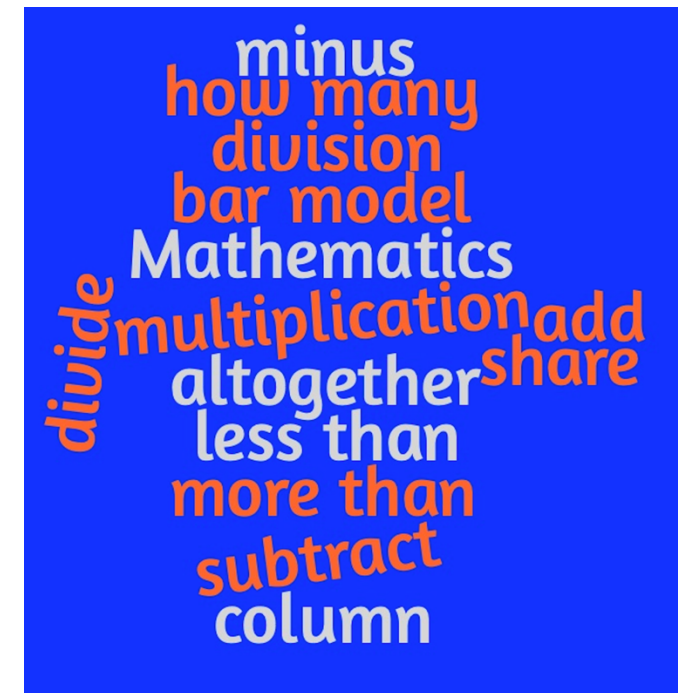
At home

- What is the time? (Both digital and analogue clocks)
- How many minutes until bedtime/lunch time?
- How many jumps can you do in 1 minute?
- How many minutes in an hour/ half an hour/quarter of an hour?
- How many pages in this story book?



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Mathematics for Parents



Mathematical Vocabulary

General

ones, tens, hundreds, thousands, place value, digit, real story, maths story, part-part-whole, number sentence, equation, regroup and rename, calculation, reasoning.

Addition and Subtraction

add, addition, addend, more, plus, increase, sum, total, altogether, score, double, near double how many more to make...? subtract, subtraction, subtrahend, take (away), minus, decrease leave, how many

Multiplication and Division

lots of, groups of, times, multiply multiplication, multiplied by, multiplicand, groups of, multiple of, product, once, twice, three times... ten times as (big, long, wide. And so on), repeated addition, array, row, column, double, halve, share, share equally, one each, two each, three each, group in pairs, threes... tens, equal groups of, divide, division, divided by, dividend

Maths vocabulary card app



Math Vocabulary Cards App - play games with words and pictures to learn mathematical vocabulary.

Useful Websites

Purple Mash
Education City
Times table Rock Stars
BBC bitesize

What is CPA?

This is the sequence we use when we teach children in lessons.

CPA stands for concrete-pictorial-abstract, and this approach is based on research by psychologist Jerome Bruner. The research suggests that there are three steps (or representations) necessary for pupils to develop understanding of a concept.

Concrete



This is the physical stage of learning that all children must experience to gain a conceptual understanding of new areas of learning. In Year 1 that may mean that when they are learning to add they are using cubes to create groups and then count the total. In Year 6 when learning how to find a fraction of an amount they may use counters to help their initial understanding

Pictorial



The pictorial stage - a student has sufficiently understood the hands on experiences performed

and can now relate them to representations, such as a diagram or picture of the problem. In the case of a division exercise this could be the action of circling objects.

Abstract

The symbolic stage - a student is now capable of representing problems by using mathematical notation, for example: $12 \div 2 = 6$ This is the ultimate mode, for it is clearly the most mysterious of the three

What is Bar Modelling

Bar modelling has been developed as a way to visually represent a word problem; it is not used to teach children how to complete calculations but how to complete word problems and puzzles.