

# Demonstrations of using apparatus to understand calculation strategies

## Addition

CPA Adding TO to TO with no regrouping

<https://www.youtube.com/watch?v=W045qem92XE>

CPA Adding TO with regrouping in the ones

<https://www.youtube.com/watch?v=XzxAGsj2BBA&t=9s>

CPA Adding TO to TO with regrouping twice

<https://www.youtube.com/watch?v=8vqD-HjjPfY>

CPA Adding 2 numbers together to 2dp with no regrouping

[https://www.youtube.com/watch?v=sGUc9M2V\\_yU](https://www.youtube.com/watch?v=sGUc9M2V_yU)

CPA Adding 2 numbers to 2dp with regrouping

[https://www.youtube.com/watch?v=8pl\\_-7NIJrk](https://www.youtube.com/watch?v=8pl_-7NIJrk)

## Subtraction

CPA Subtracting TO from TO with no regrouping

<https://www.youtube.com/watch?v=W2toDvIFKvc&t=12s>

CPA Subtracting TO from TO with regrouping

<https://www.youtube.com/watch?v=YFGZCsGZ8i0&t=4s>

## Division

CPA Dividing TO by O with no regrouping or remainders

<https://www.youtube.com/watch?v=9-b9jBhTpM8&t=34s>

CPA Dividing TO by O with regrouping and no remainders

<https://www.youtube.com/watch?v=IVQkdc7QMw4>

CPA Dividing TO by O with regrouping and a remainder

<https://www.youtube.com/watch?v=ZMblTwtT-mQ>

## Fractions

Bar Model Fractions of amounts

<https://www.youtube.com/watch?v=WAuEShQLWZY>

Bar Model Unit Fraction x Unit Fraction

<https://www.youtube.com/watch?v=7Pew7Byl6qQ>

Bar Model Non unit Fraction x Non unit Fraction

<https://www.youtube.com/watch?v=cgUajjdHIAQ>

Bar Model 2 items cost the same price

<https://www.youtube.com/watch?v=RY74qyEJMrA>

Bar Model Scaling an amount

<https://www.youtube.com/watch?v=oApxdjBNuHE>