

CALCULATOR FUN

Investigating with a calculator

Choose one of these to work on in your group.

1. Only 2

Can you make 15 using only these keys:

$$2 \quad + \quad - \quad \times \quad \div \quad = \quad (\quad)$$

- Which is your favourite way?
- Which is the shortest way you can find?
- Which way uses the most keys?
- Which uses the least keys?
- What other numbers besides 15 can you make?

2. One million to seven

Put one million into your calculator (that's a 1 followed by six zeros).

Investigate how many ways you can find to reduce 1,000,000 to 7 using only these keys:

$$7 \quad + \quad - \quad \times \quad \div \quad = \quad (\quad)$$

- Which is your favourite way?
- Which is the shortest way you can find?
- Which way uses the most keys?
- Which uses the least keys?
- Which make exactly 7?

3. All the fours

Using only these keys:

$$4 \quad + \quad - \quad \times \quad \div \quad = \quad (\quad)$$

make as many numbers as you can from 0 to 20.

Hint: you can use numbers like 44 as well as just 4!

- Which is easiest? Why?
- Which are really hard? Why?
- Are there any you can't do at all?
- Are there any you can do in more than one way?
- Could you make 100 or 1000 using just these keys?
- How about a million (1,000,000)?